MODERN PACKAGING



IN THIS ISSUE:

A look at some parallel trends in the packaging of beer and beverages

NO DOG EARS

400% Higher Glue Cost Saves Money

Here's one manufacturer's savings: In side seaming flour bags before forming satchel and square bottom gusset bags. Production was stepped up to 250 bags a minute. Compression time was shortened. Shelf leakers reduced. Down-time for glue adjustment or change stopped. And waste—caused by tail outs, side outs, or dog ears—was ended.

Here's the adhesive: A new fast breaking, instant bonding Resyn adhesive that holds tight at score points and prevents leakers. Bonds both nonporous and porous bag stock; tubing, cartons, and boxes. Applies a thin, nonpenetrating film. Is colorless, odorless. And more moisture resistant than vegetable glues.

National Starch Products Inc. (Adhesives Division), 270 Madison Ave., New York 16; 3641 So. Washtenaw Ave., Chicago 32; 735 Battery St., San Francisco 11; and other principal cities.



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a handsome package with the strength of steel

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Reinforced with strips of cold rolled steel at the corners, the GAIRSTAY carton easily absorbs the punishment of both internal and external shocks.

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GAIRSTAY cartons can be attractively printed in any combination of colors—on white or colored boxboard. In addition, the steel stays come in ten standard colors to harmonize or contrast with the printed design.

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SIMPLE, EFFICIENT PRODUCTION

An operator can be quickly trained to use the GAIRSTAY machine, which cuts off a strip of stay material, folds it around a corner of the carton, drives the prongs into the boxboard and clinches those prongs in place—all automatically.

Write for a folder on GAIRSTAY CARTONS. Please address your request to Department 19



FOLDING CARTONS
SHIPPING CONTAINERS
PAPERROADD

ROBERT GAIR COMPANY, INC., 155 EAST 44th ST., NEW YORK 17

MODERN PACKAGING

Vol. 27 January 1954 No. 5

Guideposts to 1954 85	Display Gallery 120
Abundant resources and a wealth of new ideas point the way for packaging in the mounting competitive battle.	Lipstick unit has vacuum-formed dome Johnson & Johnson's floor stand for baby products giant decanter for Schenley
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Tiny "ampoulette" that holds a single minim of liquid finds varied uses.	Tacky-Stacky Tea Garden's name for a device that gives
Stripcoating for cheese 95	non-slip coating to jar tops and bottoms.
Built-up coating of wax and plastic lacquer can be slit, folded back, replaced.	Sharper Lipton 126 Tea and soup-mix packages get uplift for
Electronic label inspection 98	stronger shelf identity and TV pre-sell.
Eastman Kodak unit reads code with seven wire "fingers," passes only cans flashing agreed-upon signal. By M. J. Reid.	Four-faced noodles Cellophane bags printed on all sides give new "4-D" sales potential in mass display.
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New approach to typewriter-ribbon packag- ing plastic-handled carrying case snowflake-shaped container for moth killer plastic holder is easel display.	Studies indicate carton-overwrap combina- tion can deliver a superior product, with glazing unnecessary. By Marian Klein, L. E. Simerl and Ernest Adams.
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A CARTONED TIN OF SARDINES is a mite unusual — but then neither the products nor the packaging of Wm. Underwood Co., Watertown, Mass., have ever been commonplace. For years the Underwood Deviled Ham can (uniquely paperwrapped on a REDINGTON) has been recognized at a glance by housewives everywhere. Now REDINGTON-cartoned Underwood Sardines stand out with equal distinction on any supermarket shelf, trim and colorful among all the naked competition.

We're especially proud that Underwood put this cartoning job on a *Type 23 REDINGTON*; it shows how well sound REDINGTON engineering, sturdy REDINGTON construction, efficient REDINGTON operation have proved themselves through years of smooth, low-cost production.



MOOSEABEC SARDII

MACHINE PACKAGING FOR PROFIT

It costs you nothing to investigate how REDING-TONS might make *your* packaging more profitable, whether it is complex or relatively uncomplicated, and whether your operation is huge or modest. Call us in soon!

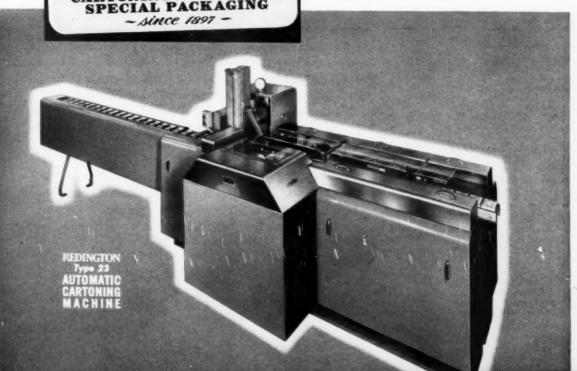
F. B. REDINGTON CO.

110-112 S. Sangamon St., Chicago 7, Ill.
Room 828A, 342 Madison Ave., New York 17, N. Y.

Sardine tins are placed in pockets of article conveyor, keys laid on top. The REDINGTON automatically feeds and expands a carton, inserts tin and key, folds and tucks in endflaps. No carton can be fed to an empty pocket. Up to 175 complete packages per minute are produced.

REDINGTON
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MODERN PACKAGING

A new cover series

W HEN WE ANNOUNCED our *Packaging's Hall of Fame* cover series, just five years ago this month, we expected it to run for 12 months—or, at the most, 24. We didn't reckon with its popularity—nor with the number of product fields in which outstanding packaging leadership could be found.

The *Hall of Fame* roll is now complete, with 59 success stories which we believe will stand for a long time as illustrations of packaging's role in American enterprise.

This month we embark on an exciting new venture—a month-by-month study of packaging's progress not by companies, but by broad industries. Having put individual companies under the microscope, we now hope to broaden the picture to show the trends and influences that account for industry-wide packaging practices.

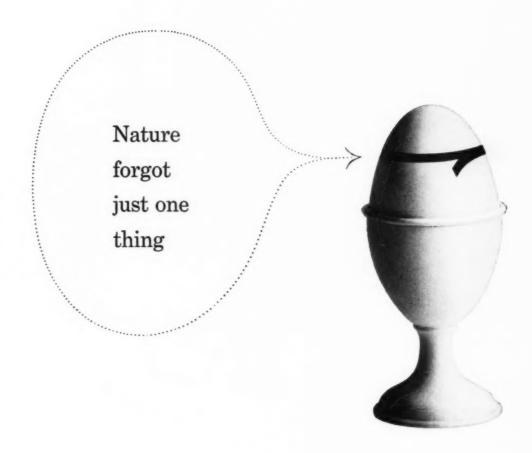
To interpret these packaging industries on our covers, we have commissioned the distinguished American artist George Giusti, whose simple, dramatic renderings have long intrigued the readers of *Fortune* magazine. His first illustration appears on the cover this month, in association with our study of the beer and beverage industries starting on p. 100.

Mr. Giusti might be called an impressionist. But his impressions reveal a piercing insight into basic and distinguishing characteristics. In his ability to capture the most abstract subjects and reduce them to meaningful images with a few simple—almost careless—strokes of line and color, he is perhaps without a rival among illustrators today.

In his native Milan, Mr. Giusti was trained as an architect. Although his artistic nature soon rebelled at the constraints of that profession, his work still reveals its influence. Since his arrival in this country in 1938, he has enjoyed a steady stream of significant illustration assignments and he wields a considerable influence on industrial design.

George Giusti's cover series for Modern Packaging is one of the most ambitious single undertakings of his career. Here, on the colorful stage of our covers, he will present his impressions of the drama of packaging. We hope you will find each a stimulating introduction to the story within.

The Editors



Zip-Tape®—Dobeckmun's colorful opening device—sets a dazzling pace in the retail field. Every day in the U.S. alone more than 83 million packages are zipped open with this low-cost convenience. It's easy to apply automatically on packaging machinery. It comes preapplied on Dobeckmun printed bags too. If you'd like samples and information on this wonderful packaging sales tool, just write: The Dobeckmun Company, Cleveland 1, Ohio · Berkeley 2, California · Bennington, Vermont

Atlanta - Boston - Charlotte - Chicago - Cincinnati - Dallas - Detroit - Indianapolis - Kansas City - Lexington - Los Angeles - Membhis - Milwaukee New Orleans - New York - Philadelphia - Pittsburgh - Portland - Richmond - Rochester - Salt Lake City - Seattle - St. Louis - St. Paul - Tampe

Why a product must speak for itself

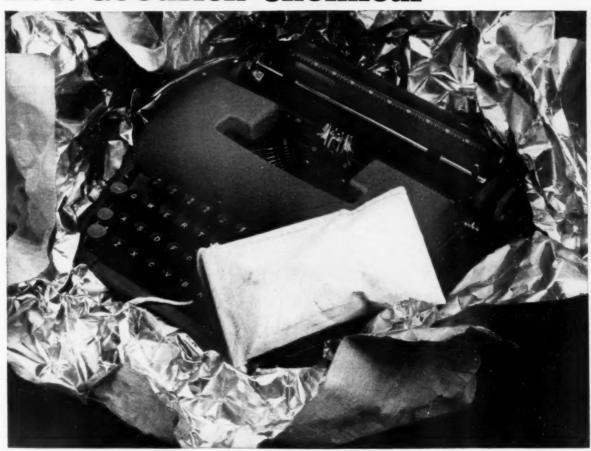
In these self-service days, labels must do almost the entire job of attracting attention, stimulating appetite and closing the consumer sale. Because Oxford Papers enhance the finest package design by capturing freshness and appeal of line and color, these quality grades are fit foundation for labels that sell.



OXFORD PAPER COMPANY, 230 Park Ave., New York 17, N. Y. • OXFORD MIAMI PAPER COMPANY, 35 East Wacker Drive, Chicago 1, Ill.

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B. F. Goodrich Chemical raw materials



B. F. Goodrich Chemical Company does not manufacture this desiccant bag. We supply the Geon latex only.

"Breathing" Bag Sops Up Moisture

-cuts shipping damage!

Shipments of tools, motors and clothing overseas or to humid climates risk damage by moisture or mildew. Pictured here is a new type desiccant bag which "breathes" and does a superb job of sopping up damaging moisture.

Unusual feature of this new bag is the non-woven fabric, made of random cotton fibers with liquid Geon vinyl latex as a binder saturant.

Made into bags to carry the desiccant, this fabric has exceptionally high tensile strength and good tear resistance. Yet its porosity permits moisture inside the airtight container to be adsorbed easily on the desiccant. And the bag can be used over and over merely by heating to drive out the moisture.

Geon vinyl latices have many applications—such as providing a water-proof, grease-resistant coating to paper and boxboard; leather finishing; pigment binding and fabric sizing.

Perhaps a Geon material can help you improve or Jevelop more saleable products—where resistance to heat and cold,

moisture, abrasion, oil, grease and many chemicals is required. For technical advice, please write Dept. GL-1, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio, Cable address: Goodchemco. In Canada: Kitchener, Ontario.



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A walk down the aisle of any super-market will point out the vast array of products packaged in National Can containers. A great part of the development of these packages was done by NC's team of production expert, research chemist, agronomist and merchandising counsel. Their half century of can making know-how is always at your service. Why not call or wire - today - and have them help you, too. No obligation, of course.



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POLYCEL* polyethylene coated cellophane is available through converters, printed and fabricated into bags and envelopes, and in printed rolls for wrapping and heat-sealing on automatic packaging equipment. Ask your converter or write H. P. Smith Paper Co., manufacturers Chicago 38, for complete information, samples, names of Polycel Converters.



Tri-State Rigid Plastic Box creates a TWIST-FREE PAK* for SOUTH BEND SPINNING LINE...



Tri-State Rigid Plastic Box, No. 06, 2% x 2% x 1% ", is just one of a huge variety of stock sizes and shapes that will fit your product — or we will mold to your specifications.

South Bend Bait Company will really reel in the anglers with this exclusive new Twist-Free Pak! Because the fine monofilament nylon line winds directly through the hole in the lid of the Tri-State rigid plastic box... right onto the reel, it can't twist, can't snag, can't get the angler in a snarl!

That's just one "sales bait" bonus of the new Tri-State package. The dustfree, moisture-proof plastic box keeps the contents fresh, flexible and "fishable"...lures the customer as he looks in. And the re-usable container is a paradise for all sorts of fisherman paraphernalia.

It is merchandising and packaging ideas like this that Tri-State, molders of the world's greatest assortment of rigid plastic boxes, can tailor to your product. It's a sales plus that will "plush line" your sales figures!

Patent Fending

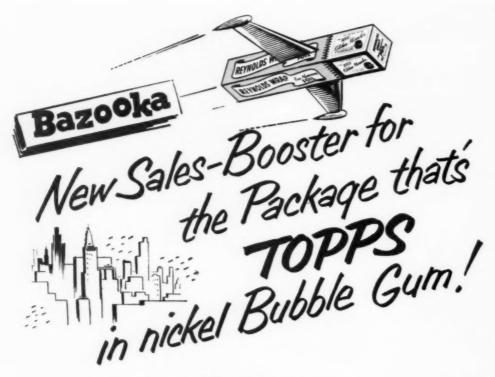
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Up to now, only experts knew the quality protection of this special foil-wax-paper wrap, that helps prevent oxidation and moisture loss-or-gain. Now parents can be sure it's protected quality the children put into their mouths. The Seal tells them...with the authority of their own favorite aluminum "packaging," Reynolds Wrap.

If your product has or needs protective packaging, make it Reynolds Wrap Aluminum Packaging—with this sales-boosting Seal. And count on Reynolds advanced printing techniques to make the most of aluminum's supreme eye-appeal...in packages and labels. Call the nearest Reynolds Sales Office. Or write to Reynolds Metals Company, General Sales Office, Louisville 1, Ky.

BIG NATIONAL CONSUMER CAMPAIGN PROMOTES
REYNOLDS WRAP ALUMINUM PACKAGING SEAL!

See "MR. PEEPERS," Sundays, NBC-TV. See the first of a series of full-page, four-color ads in February LADIES' HOME JOURNAL, WOMAN'S DAY and FAMILY CIRCLE, and February 8, LIFE, And watch the list of Seal-users griw!

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THE ATOM BUBBLE GUM NATURAL & ARTIFICIAL PLAYORS & VEGETABLE FOOD COLOR.

THE ATOM BUBBLE GUM

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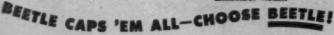
A POLICY OF SMART CONTAINMENT FOR COSMETICS... PHARMACEUTICALS



For Trouble-Free Sealing—BEETLE

BEETLE gives a good tight seal that won't back up on threads ... effectively resists alcohol, acetone and common solvents ... is light in weight but strong.





For Smart Styling—BEETLE

BEETLE Plastic is readily adaptable to any packaging theme . . . any color. Color goes clear through, from surface to surface.

And BEETLE stays beautiful, too . . . resists scratching and chipping, won't attract dust on counters.





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You Always Win With OLIVE CANS

If you use lithographed metal containers, you win *five ways* by buying them from Olive Can Co., a leader in this field for over forty years.

Ordering from Olive Can puts you ahead of the game on design and service,

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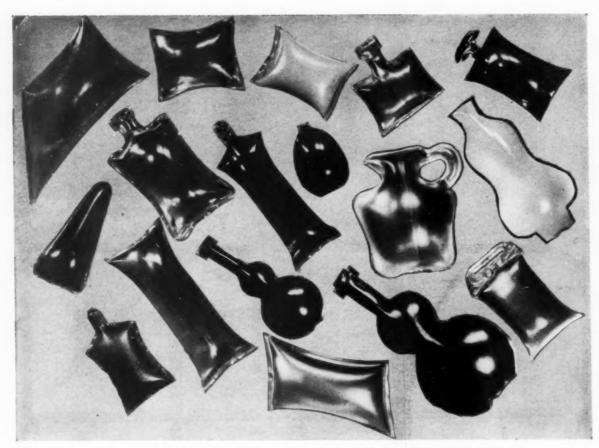
Quality OLIVE CAN COMPANY Service



MANUFACTURERS . DESIGNERS . PLAIN . LITHOGRAPHED

JANUARY 1954





The above illustrates just a few liquid or paste-filled packages and collapsible tubes in different shapes which have been produced by the RADO PROCESS.

We will pack your products in packages of your own design, decorate them with embossing, and print them in up to five colours.

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British Patent Nos. 599,174, 599,183 and 675,073 U.S.A. Patent Nos. 2,530,400 and 2,517,027 PATENTS IN 36 OTHER COUNTRIES AND FURTHER PATENTS PENDING

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Rheem sets the standard for the entire steel container industry by taking care in preparing its steel for

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Every minute particle of oxide "scale" is removed by Rheem shot-blasting, stopping rust and corrosion for years of dependable service.



Clean! After steel sheet is rinsed, even a white handkerchief can't find a trace of soil or contamination.

ATTENTION SHIPPERS!

Rheem has a complete line of special drum linings for a variety of products. But if your product requires a unique lining, Rheem will develop it for you. Each of Rheem's seven strategically-located container plants has complete laboratory facilities. Expert chemical engineers who have solved container problems for many of America's largest shippers will help you. Call or wire the office nearest you!

RHEEM DRUMS ARE CLEANER!

Shot-blasting process removes troublesome oxide "scale" from both sides of each steel sheet and leaves a clean, oxidefree surface. Then each sheet is rolled and leveled to insure a smooth, even surface necessary for precision rollercoating. Next, detergents, scalding water and revolving brushes scrub it clean. After rinsing and drying, the sheet is ready for further treatment.

RHEEM DRUMS LAST LONGER!

Once clean, each sheet is treated on both sides with a patented phosphoric compound to inhibit rusting. This is one more important step in Rheem's careful preparation of its steel to insure uniform adherence of the drum lining. This also makes it possible for Rheem Drums to withstand long periods of weathering. Finally, when required, special coatings are roller-applied and baked on to produce a tough, durable finish that protects your product from contamination.

Free Folder! Write today to the nearest Rheem Manufacturing Office listed below for your free copy of informative folder on Rheem Drums,

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Bright ideas for faster sales

 $\mathbf{F}_{\mathrm{ood}}$ processors who know their groceries have found that aluminum foil packaging gives a big sales boost to *any* food product.

No other packaging material can match aluminum foil's combination of sales appeal, quality protection, and production ease.

Attracts customer attention—Sparkling aluminum foil is an unsurpassed eyecatcher. It retains its handsome "fresh" appearance, wet or dry. Makes products more desirable by reflecting the quality it protects.

Maintains product quality—Non-porous aluminum foil helps prevent flavor loss, prolongs sheaf and storage life. Keeps moisture out indefinitely. Prevents dehydration. Reflects heat, light. Imparts no flavor.

Adds production versatility—Pliable foil is easy to handle, easy to print on. Can be decorated, coated, embossed, combined with other materials. Durable heat seal easily applied. Excellent cold transfer characteristics for frozen foods.

Although Kaiser Aluminum does not manufacture packages, we can furnish names of leading package converters who regularly use Kaiser Aluminum Foil. They will be glad to work with you on your packaging problems. Call or write any of our offices in principal cities or Kaiser Aluminum & Chemical Sales, Inc., Oakland 12, California.



FOR BOTTLES TOPS! – Milk bottle closures made with Kaiser Aluminum Foil provide extra tight seal, more protection from dairy to user.



QUALITY KEEPER—Frozen chop suey stays cold during several handlings in distribution throughout country. Moisture, light, air sealed out!



FOILS HEAT—Heat-sensitive peanut brittle can now be sold year around, because foil reflects heat, prevents intrusion of destructive moisture.



GUARDS FLAVOR—Protects cream cheese from dehydration, loss of bulk and flavor. Foil retains eye-appeal even after prolonged refrigeration.

Kaiser Aluminum

setting the pace—in growth, quality and service



New-wonder-working windows -remain wrinkle-free

If you package your product in a window carton or bag for greater sales appeal, consider these two important advantages of PLIOFILM:

1. Its unusual dimensional stability. PLIOFILM is impervious to moisture, won't shrink or stretch. Result: clear and lasting transparency, without a trace of sag or wrinkle.

2. Its puncture proofness. PLIOFILM is tough and tear-resistant, won't shatter or run.

Takes rough handling on self-service counters without danger of breakage.

In addition, PLIOFILM is greaseproof. It wraps products like bacon or pork without smearing. PLIOFILM is economical to use, too. No other film yields as much protection per pound. You can get all the facts—and all the help you need in designing a package—from the Goodyear Packaging Engineer. Write him at Goodyear, Pliofilm Dept. M-6418 Akron 16, Ohio.



Good things are better in

Pliofilm

3-way protection against air, moisture, liquids

Pilofilm, a rubber hydrochloride-T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

We think you'll like "THE GREATEST STORY EVER TOLD" - every Sunday - ABC Radio Network - THE GOODYEAR TELEVISION PLAYHOUSE - every other Sunday - NBC TV Network



A glass of Velvet Rose Pure California

Sherry* is a popular way of relaxing before the evening meal. Lots of folks say the smooth, mellow flavor and rich taste of Velvet Rose puts them in a warm, restful mood . . . eases off the tension of the busy work day.

A FRIENDLY GLASS BEFORE DINNER...

Velvet Rose Wine is sealed with a Crown Screw
Cap and a cellulose outer seal . . . double protection
that means dependable sealing as well as a safeguard
against tampering and sampling.

This Crown Screw Cap is becoming more popular day by day. Manufacturers of wines and liquors like its easy application . . . its sure protection . . . special liner . . . simple removal and fine re-sealing feature. Crown Cork & Seal Company, Baltimore 3,

Maryland. World's Largest Makers of Metal Closures.

Approved by millions of housewives

*Velvet Rose Wines are bottled by the Southland Wine Company, Richmond, Virginia.



Good medicine for business



Heat-sealed Sylvania Cellophane strips give individual protection to Gelusil antacid tablets, packaged 10 to a strip ... overwrap brightens printed box for greatest customer appeal and visible cleanliness. Some pills...some cellophane. Protection. Sparkling eye appeal. A package that sells. A product that sells. Moisture-proof, surely sealed, easy to carry, easy to use. Automatic high-speed packaging...dollar-saving economy.

Pills, powders, panties or pastries—whatever you make—Sylvania Cellophane is a real tonic for sales. Remember, cellophane and only cellophane gives protection plus sparkling eye appeal, at a bargain price. For modern packaging ideas, see your Sylvania specialist today. Sylvania Division,

American Viscose Corporation, 1617 Pennsylvania Blvd., Philadelphia 3, Pa.

SYLVANIA CELLOPHANE







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Modern high speed packaging machinery puts adhesives to a tough test. Manhattan Packaging Adhesives come through time after time . . . because Manhattan research laboratories are always at work developing packaging adhesives that combine instant adhesion with maximum strength and endurance.

Write for Literature

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3961 SOUTH LOWE AVENUE CHICAGO, ILL.

do you want to give your product this "HOME MADE" customer appeal?

If you're selling a specialty food product in a package that's sitting on its hands, then give it a different kind of appeal. Sealright's newest idea in paper packaging—the plastic-coated moist food container—is putting steam behind new food promotions all over the country. Food processors are finding out that Sealright packages are moving customers to action with a new fresh-look, "home-made" customer type of appeal. Talk to a Sealright man about it as soon as you can.

a brand new idea in paper packaging!





FROZEN BAKED APPLES

This bake and serve plasticcoated container filled with baked-in-syrup apples was the sensation of last fall's Paper Show in Chicago.



FROZEN RAVIOLI AND SAUCE

The Tony Bonnelle's Restaurant of Belleville, Illinois, wanted to give its famous ravioli and sauce store distribution. "We've done so well, we wouldn't use any other package now," says Mr. Bonnelle.



Sealright

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Plastic Coated Containers

Oswego Falls Corp. — Sealright Co., Inc., Fulton, N. Y., Kansas City, Kansas — Sealright Pacific, Ltd., Los Angeles, California — Canadian Sealright Co., Ltd., Peterborough, Ontario, Canada. SEALRIGHT CO., INC., FULTON, N. Y.

Please send me some samples and more information on Sealright's newest idea in paper packaging.

MP541

TEA BAG TAPE REPLACES EXPENSIVE TAG-AND-STRING

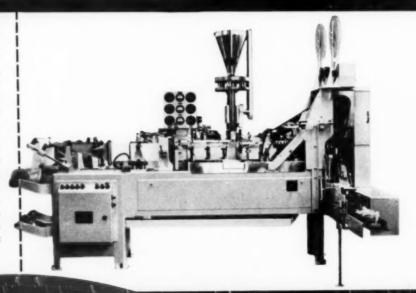
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PACKAGING MACHINE

A Bartelt Packaging Machine was specially adapted to make a package that will replace the expensive tagand-string normally used on tea bags, with a sturdy, economical paper tape. This tape is a feature of Continental Coffee Company's ice tea bag. The same Bartelt Packager that forms, fills, and seals each bag also attaches the tape and then wraps the tape around the bag... automatically. Costs of packaging tea have been cut drastically. Brand name can be embossed on the tape.

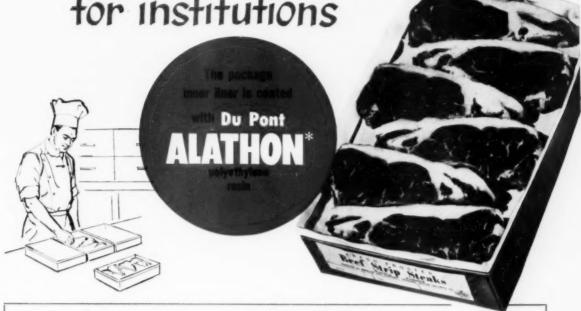


A Bartelt Packaging machine may be adapted to your needs if you can use a pouch style, heat-sealed package. The Bartelt Packager makes the bag from a roll of paper, film, or foil, fills by count, volume, or special feeder; and beat seals accurately and safely. Additional sealing, wrapping, or cartoning equipment can be conveniently added. Send us your packaging problem today.



BARTELT ENGINEERING CO. 1900 HARRISON AVENUE ROCKFORD, ILLINOIS

electric matten central "Machinery for Creative Fackaging" Pre-cut, pre-weighed frozen meats for institutions



Inner liner coated with "Alathon" stands quick-freezing without cracking—keeps moisture resistance

Armour & Company faced several problems in packaging pre-cut, pre-weighed, quick-frozen meat cuts for institutions. These meats require sturdy, moisture-resistant packaging—calling for an inner liner that would not be weakened by the natural moisture of the meat products. In addition, the inner liner had to stay tough and flexible at extremely low temperatures ... could not crack or weaken along crease lines at quick-freezing temperatures as low as 60° F. below zero.

These problems were solved when the packager selected an inner liner of 40# wet-strength kraft with a ½-mil coating of Du Pont "Alathon" polyethylene resin on the inside, "Alathon" is an excellent mois-

ture barrier and is not affected by the natural juices in meat. And there is no problem of cracking at low temperatures with coatings of "Alathon," since "Alathon" stays tough and flexible over a wide range of temperatures—from tropic heat to 70° F. below zero.

Perhaps "Alathon"—with its unique combination of properties—can help you solve a packaging problem. "Alathon" is tasteless, odorless, non-toxic—resists most greases, acids and alkalies. Consider its advantages in multi-ply or single-ply bags, pouch bags, chipboard containers and trays, fiber drums and cartons, or corrugated boxes.

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describing the properties and uses of "Alathon" in the packaging field, or simply mail this handy coupon. We'll gladly put you in touch with sources of supply for packaging materials coated with "Alathon." E. I. du Pont de Nemours & Co. (Inc.)

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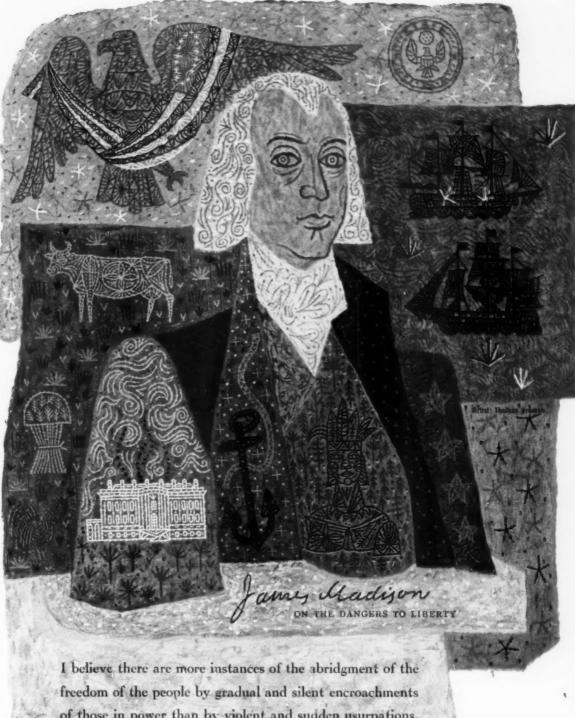
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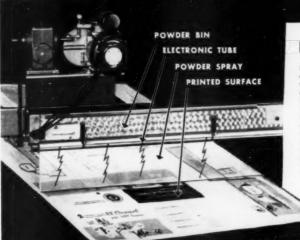
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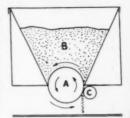
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and applied to cast. When cast is finished, any residual resin solution is left in liner—liner-top is re-tied—can is closed and thrown away. No messy residue on bottoms or sides of rubbish containers; no danger of clogged drains; no disposal problems.

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Acetate and Vinyl Packaging Machine

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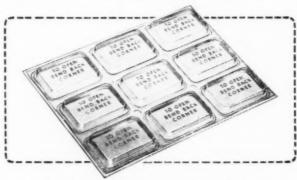
Acetate, rigid vinyl or a combination of rigid and soft vinyl may be used to create a package that is individual, attractive and practical. Eye appeal plus low cost make contour packaging the THERMATRON way a *must*.



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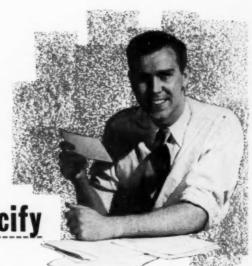
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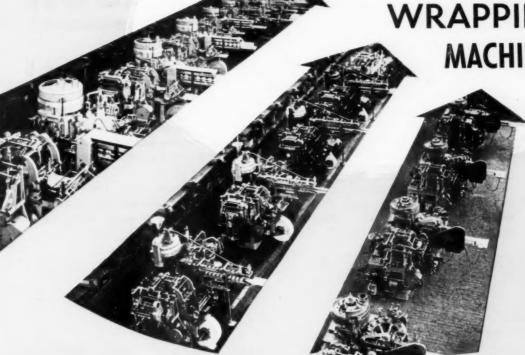
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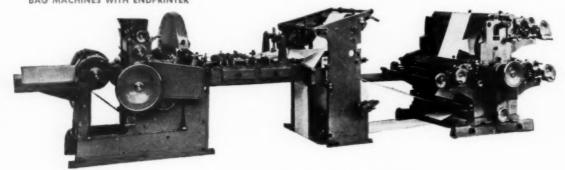
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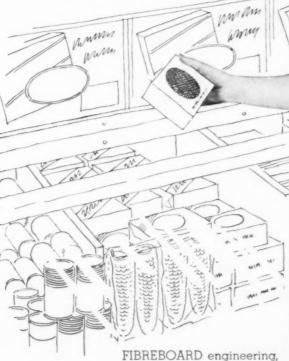
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GLASPUN Middleweight
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GLASPUN Welterweight #443

tocker

"The leader in gummed tape"

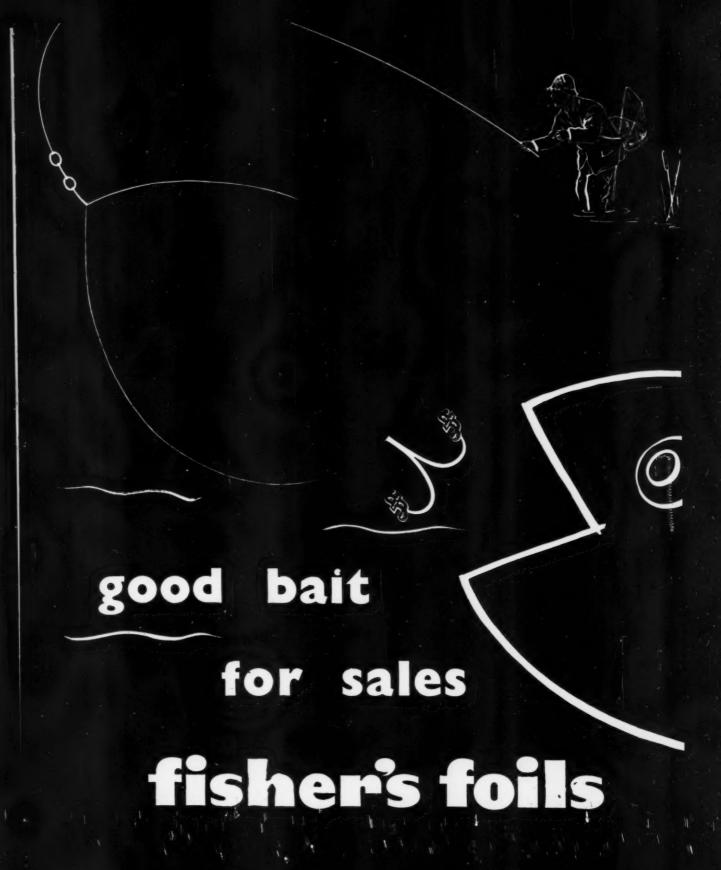
MANUFACTURING COMPANY*

Main Office & Plant: Netcong, New Jersey

Sales Offices:

New York ... Boston ... Cleveland ... Chicago ... Philadelphia ... Atlanta ... Nashville ... Havana, Cuba ... Los Angeles ... Houston

*Affiliated with Camp Manufacturing Company, Franklin, Virginia, an integrated producer of specification kraft (bleached and unbleached) and corrugating medium, assuring uninterrupted service on your gummed tape and waterproof paper requirements.



FISHER'S FOILS LIMITED - EXHIBITION GROUNDS - WEMBLEY - MIDDLESEX - ENGLAND TELEPHONE WEMBLEY 6011 CABLES LIOFNIT WEMBLEY (ABC CODE 6TH EDITION)

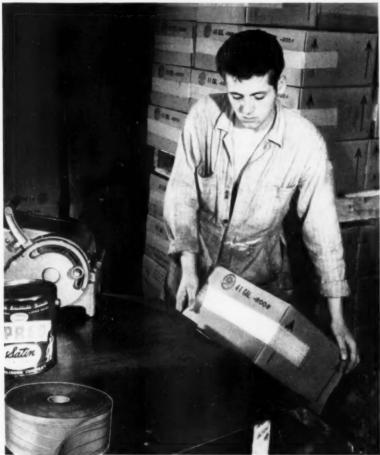






Which of these PACKAGING IDEAS

will cut your costs?



Send coupon with letterhead for facts and

Six widths.
Easily dispensed by "cut-off" type machines.

Free samples

INDUSTRIAL PACKAGING PAPERS SINCE 1895





Stronger Wrap for Big Packs

Angier's new Glass-wrap is reinforced with strong glass fibres to give better protection at less cost. Water-proofed; flexible; up to 96" wide. Check below for FREE sample & facts.



Vapor-from-Paper STOPS RUST

Saves greasing. Saves degreasing. It's Angier's proven vapor rust preventive —VPI® Wrap. Easiest, sure way to store or ship your metal products. Check below for FREE sample & facts.

Center-seam sealing with "Snake Tape" saves time

← It's the fast way to seal cartons. Yet, that one strip along the center seam gives Glidden's 55 lb. cartons a stronger closure! That's because Snake Tape is reinforced to give strap-like strength.

Center-seam sealing is accepted for parcel post, railway express, air express, and truck shipments; it also is accepted for carload and LCL rail shipments where rule 5, section 1 (c) of Uniform Classification applies.

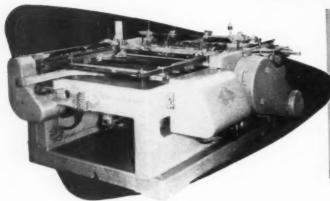
Check below for FREE sample & facts.

	GIER CORPORATION mingham 11, Massachuse	its
I wa	ant information and sam	ples of
	Angier's glass fibre-rei Glass-wrap.	nforce
	Angier's vapor rust pre VPI Wrap.	ventiv
	Angier's reinforced, proofed Snake Tape.	water

rugged, fast, dependable...

HAMILTON

can making machines

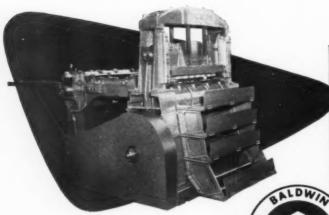


HAMILTON

duplex gang trimmer and slitter..

Automatically trims and slits sheets up to 36" at high speeds . . . as fast as 70 sheets a minute . . newly designed for more efficient, economical operation.

See both of these modern, high-speed machines in operation in Booth A-26, Canners Convention, Jan. 23-27, Atlantic City



Learn more about how modern machines from the complete Hamilton line can give you faster production at lower unit costs. Write...

HAMILTON

scroll shear . .

Speeds output, handling sheets 25" to 36" square up to 125 strokes per minute. Cuts costs, saving up to 7% in tinplate.



HAMILTON DIVISION

Baldwin-Lima-Hamilton Corporation Hamilton, Ohio

BALDWIN-LIMA-HAMILTON





SINCE THE BAYER COMPANY DIVISION TURNED TO SCANDIA AUTOMATIC BUNDLING MACHINES

YOUR PRODUCT, TOO, DESERVES THE BENEFITS OF THE SCANDIA AUTOMATIC BUNDLING MACHINE:

- VERSATILITY
 bundles in Kraft, glassines or cellophane
- <u>REDUCED COSTS</u>
 greater production and shipping costs reduced
- IMPROVED APPEARANCE
 custom wrapped; permits mass displays
- COMPACTNESS
 machine occupies less factory space

Your inquiries concerning detail performance characteristics are invited.



Manufacturers of Better Packaging Machinery

Which of these Bostitch extras



can mean most in your carding?

EXTRA VISIBILITY Bostitch stapling gives your product full display—permits maximum benefit from the merchandising advantages of carding. Thin strands of wire secure the product to the card...can hardly be seen. No tapes, ribbons, or pieces of cardboard to conceal your product.

EXTRA SECURITY Stronger than tape...
more secure than other methods... Bostitch
staples prevent loss of products from cards
during routine handling—discourage pilferage. Form-fitting Bostitch staples fasten most
fragile or yielding objects without damage.

EXTRA ECONOMY You save two ways when you card with Bostitch: 1, because staples cost less than tape, ribbon, or expensive die-cut cards. 2, stapling is both quicker and easier to apply. Some firms report savings of thousands of dollars annually when they switch to Bostitch.

EASY TO GET STARTED Here's what you do: Send the coupon below. Or write or call the Bostitch office in your phone book. The Bostitch Economy Man will be glad to give you complete details without obligation. Worth looking into, isn't it?

FASTEN IT BETTER AND FASTER WITH

BOSTITCH

BOSTI	тсн,	481	Mechanic	St.,	Westerly,	R.	I.

Send me full details about carding with Bostitch.

Vama

Compan

Street

City

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VISIBILITY UNLIMITED

AMCOTE SHOW PACKACIANCE

Put twelve little packages into a vivid LAMCOTE "showcase" . . . and how they sell! This sparkling miniature masterpiece designed by Arvey moves more merchandise because it calls the eye, shows the product, makes women buy. No matter what your product, no matter what its size, our technical skills and creative showmanship can swing sales your way!

Ask us to show you!

Today . . . investigate the functional show-and-sell power of a LAMCOTE "Showcase" PACKAGE to build bigger volume for your product!

Glistening LAMCOTE on coral-red printed "showcase" package created and produced by ARVEY for W. O. Washburn & Sons, St. Paul,

LAMCOTE PACKAGING DIVISION OF

ARVEY CORPORATION

1905 ®

3462 N. KIMBALL AVENUE, CHICAGO 18 300 COMMUNIPAW AVENUE, JERSEY CITY 4

PRINTERS . CONVERTERS . FABRICATORS . LAMINATORS: TRANSPARENT FILMS . FOILS . ROLLS . SHEETS . BAGS



Stick with Blue Tab



TEXCEL

PERMACEL TAPE CORPORATION....NEW BRUNSWICK. NEW JERSEY

JANUARY 1954

Step up your sales with Chowcase Selling





AUTONEST

Can AUTONEST Solve YOUR Packaging Problem?

. . . LEARN MORE ABOUT IT TODAY!

The cost-cutting, sales-building applications of AUTONEST are unlimited! Take ten minutes to review your packaging procedures . . . if you discover any packaging situation where AUTONEST might mean a short-cut to bigger sales volume . . . write, wire, or phone today! An experienced packaging consultant will

be happy to arrange an interview at your

Versatile AUTONEST is the perfect sales showcase to help you build bonus sales of fruit, vegetables, cookies, confections, cosmetics, soap, or novelties . . any product where extra display means extra sales!

CHICAGO CARTON COMPANY . 4200 S. CRAWFORD AVE., CHICAGO

had a Packaging Problem, too



Clears te solved it for him... ...they can solve it for you

"Doe," the druggist, has to protect his pharmaceuticals. That's part of his ethics. He has to merchandise them, too. Celluplastic transparent containers solved both problems simultaneously for him. They'll do the same for you.

Whether you're selling pills or drills, fish hooks or lipsticks, package them in Clearsite Transparent plastic containers and you'll put them on the path to greater sales. They compliment and protect your products. Any lettering, design or trade mark can be permanently printed in colors right on the container. They're feather-light, moisture-tight, priced right. Available in many sizes and adaptable to a wide variety of closures.

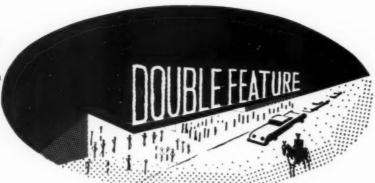
WRITE TODAY FOR DESCRIPTIVE LITERATURE

CELLUPLASTIC CORPORATION

General Offices: 50 Avenue L, Newark 5, N. J.



Enjoy the...



... Advantages of Low Cost

4 COLOR PRINTED THE STANDARD COLORS ARE RED, BLUE, YELLOW AND BLACK KRAFT GUMMED SEALING TAPE

FEATURE 1

Every carton and package leaving your plant carries your 4-colorful advertising message everywhere. (Our creative art staff will skillfully prepare art work to fit your particular needs. Free Ideas and sketches submitted with 25 Bundle minimum orders.)

FEATURE 2

Your packages are padlocked with your company's name — they're pilferage proof.

ATTRACTIONS:

- ★ Dust and dampness are locked out
- ★ On-To-Sta Tape Seals and remains perfectly flat
- ★ The uniform quality of On-To-Sta Kraft Sealing tape is protected in waterproof wrapping paper

ATI ANTIC

GUMMED PAPER CORPORATION
PRINTED TAPE DIVISION
1 MAIN STREET BROOKLYN 1. N.Y.

BRANCH OFFICES: PHILADELPHIA - PITTSBURGH - CHICAGO - BUFFALO - BOSTON - HAYANA

For flexographic and gravure printers of paper packaging and specialties...



HYDROTONE INK

-for all absorbent papers

This is the original water-type ink — low in cost and economical in use because it needs only water for thinning and washups. Use HYDROTONE for brightly colorful, soft or matte-finish effects on decorative and trademarked papers, gift wraps, notion bags, paper containers, liners for corrugated and fibre cases. Fully opaque, HYDROTONE prints clean and sharp...lays evenly... is high in color strength. HYDROTONE may be overprinted without danger of "picking"... withstands embossing and corrugating. Fast-drying, HYDROTONE may be used at press speeds up to 500 feet per minute, yet will not pile up on rollers and plates or fill in etched cylinder cells.



The alcohol-soluble ink that prints with a rich velvet finish on all kinds of paper... both absorbent corrugated. both stocks, including glassine which is to be covered with stocks, including glassine when overprinted with hydrocarbon or petroleum-type lacquers and varnishes. Use drocarbon or petroleum-type lacquers or wrinkle. The velve and the excellent results on gift, display, tabels, will not cause lightweight tissue to curl or wrinkle. WELVATEX with excellent results on gift, display, tabels, will not cause decorative papers... as well as High in warked and other decorative papers... as well as High in bags, wraps, shelf liners and other specialties. Bright color strength, VELVATEX thoroughly hides paper of solids color strength, velvates uniform coverage of solids ture. It lays smoothly and gives uniform exter. Extremely ... clean, sharp reproduction of type matex stands up in clean, sharp reproduction of type matex stands up in clean, sharp reproduction of type matex and creasing der corrugating, wet and dry hot die-cutting and creasing der corrugating, wet and dry hot die-cutting and creasing der corrugating, wet and dry hot die-cutting and creasing der corrugating, wet and dry hot die-cutting and creasing der corrugating.

 Get more information about both these BBD INKS, and convincing printed samples, by contacting your nearest BBD office — or write direct to BENSING BROS. & DEENEY, 3301 Hunting Park Avenue, Philadelphia 29, Pa. Bensing Bros. and Deeney

Flexographic Ink Specialists

PHILADELPHIA - CHICAGO - LOS ANGELES

WAKEFIELD, MASS. - MONROE, LA.

Export: McLAURIN-JONES CO., New York Canada: MANTON BROS., Toronto



You get a package that's

ACETATE FILM

PROBLEM: packaging a quality product, to make each package a brilliant showcase. Answer: a box overwrapped with gleaming Du Pont Acetate Film to give lustrous visibility and protection.

POLYETHYLENE FILM

PROBLEM: to package oranges with maximum eye appeal, while assuring the extra strength needed to hold heavy objects. Answer: bags of tough, flexible Du Pont Polyethylene Film.



CELLOPHANE

PROBLEM: to give eyecatching display to cookies, with a film that provides extra protection of freshness. Answer: Sparkling Du PontK202 Cellophane.

tailored to your product

WITH DU PONT'S COMPLETE PACKAGING SERVICE

Whatever the protective needs of your product... whatever kind of eye-catching display you want to give it... you'll find the answer in the 115 varieties of three basic films—Cellophane, Polyethylene and Acetate—offered by Du Pont.

Working with Du Pont's packaging specialists, you'll develop the package that sells . . . and protects . . . your product most efficiently. And you'll get technical help to assure the most economical

and practical package construction.

Du Pont's continuing surveys of buying habits keep you abreast of modern merchandising trends. Get in touch with your Du Pont representative, or a converter of Du Pont packaging films. He'll be glad to work with you in planning a more effective package for your product. For further information, write: E. I. Du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

Only Du Pont gives you all these packaging aids:

- WIDE VARIETY OF PACKAGING FILMS scientifically tailored to meet the needs of varied products and packages.
- TECHNICAL assistance to help you plan the most practical and efficient construction of your package.
- MERCHANDISING help through continuing nationwide surveys of buying habits, to keep your package up to date.
- NATIONAL ADVERTISING to continually strengthen consumer preference for your packaged products.

DU PONTPACKAGING FILMS

CELLOPHANE
POLYETHYLENE • ACETATE



Better Things for Better Living . . . through Chemistry

You're in Business with a low-cost CECO

Whether you do

Contract Packaging

or you have Short Runs
of many different size cartons



CONTAINER EQUIPMENT CORPORATION

Packaging Machinery Specialists
78-88 LOCUST AVENUE, BLOOMFIELD 2, N. J.







THE
SOUTHERN
BOXMAKER
WITH A
NATIONAL

Reach magnetism is that packaging quality which draws customer preference to a particular product. It's a natural ally in these days of self-service and mass-display. Let Old Dominion help give your package more reach magnetism. A complete idea team supported by unexcelled box making facilities is at your command. Example: Can-a-Pop's news making six pack carton. Carton blanks by Old Dominion. Automatic packaging machinery by Dacam Corporation.



DOMINION Box Company. Inc. CHARLOTTE NORTH CAROLINA

ride
the crest
of PACKAGING'S
biggest 1954
event!

How?--by advertising

How?--by advertising
in the March "SHOW" issue
of MODERN PACKAGING

MODERN PACKAGING a breskin publication

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Don't hide your product, show it in CELLOPHANE*

BRITISH CELLOPHANE LIMITED

Sales Offices: 12/13 CONDUIT STREET, LONDON, W.1. ENGLAND Rog. Offices and Factory; BATH ROAD, BRIDGWATER, SOMERSET

^{*} CELLOPHANE is the registered trade mark of British Cellophane Limited, in the following countries: Great Britain, Australia, Ceylon, Cyprus, Denmark, Eire, Gibraltar, Hong Kong, Iceland, India, Jamaica, New Zealand, Pakistan, Northern Rhodesia, Southern Rhodesia, Trinidad and Tobago, and the Union of South Africa.

SPRA-TAINER: Does It again!



from every angle . . .

This Mist-ifying Magic by Helena Rubinstein Holds Milady's Hair-Do

You s-p-r-a-y it . . . and a fine, fragrant, non-sticky mist bedews your hair with subtle restraint. Holds your setting come wind, humidity, or ocean spray. Controls waves and curls after permanents. Spray on damp hair before setting. Between settings, spray after combing to keep hair-do perfect,

HAIR SPRAY is a pressure product created by Helena Rubinstein, Inc.
It's packed in SPRA-TAINER, world's original
and leading lightweight propulsion can created by CROWN.

Though imitated, SPRA-TAINER alone provides the dependable protection of seamless construction, and the sales impetus of distinctive "Modern Design."

Another Familiar Helena Rubinstein Product in Crown SPRA-TAINER

Hair Sp

Helena Rubi

If you make a product that comes in a cun, you'll be giving it an enviable advantage on the market by choosing your container from Crown's Complete Line of Finest Quality Cans.



Division of CROWN CORK & SEAL COMPANY

One of America's Largest Can Manufacturers . Philadelphia, Chicago, Orlando, New York, Baltimore, Boston, St. Louis

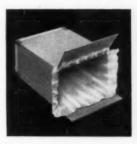


Your production can really roll if you're using DURE-THENE Polyethylene—because DURETHENE Film is all "on specs" or it isn't shipped!

Because we know what slow-ups and shut-downs do to packaging costs when Film quality is shaky and unpredictable from roll to roll and run to run, we just won't compromise the iron-clad production control rules and the rigidly critical supervision and inspection which govern the making of every foot of DURETHENE product. And miles of both flat and tubular Film, in all gauges and widths, pour out of our two modern plants every day.

Take out insurance for trouble-free, profitable packaging from now on—on your next order, tell your converter, "DURETHENE, please!" And remember that while your converter is our customer, his customer—the package user—is our constant and sincere concern, too. Call us in any time to help develop the many new sales-boosting packaging assignments you can profitably give to DURETHENE Polyethylene Film, now that supplies are so much freer and prices have been brought down so sharply.

We're right at the end of your phone!





TWO PROFITABLE USES FOR DURETHENE FILM

Heavy, costly-to-ship metal containers are being efficiently replaced by standard fibre cartons with sift-proof, chemically inert DURETHENE Film liners. DURETHENE Film liners for crened kraft bags are protecting well-known products against moisture gain or loss, contamination, sifting.

DURETHENE Polyethylene Film is widely used by major packagers everywhere for consumer-packaging such products as PRODUCE * POULTRY * FROZEN FOODS * POPCORN * CANDY * SOAP * CHEMICALS * TEXTILES * LEATHER GOODS * COSMETICS * SPECIALTIES * HARDWARE



Durethene



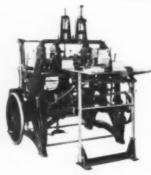
Manufacturers of Polyethylene Film for Converters

1859 SOUTH 35TH AVENUE, CHICAGO SO, ILLINOIS • OLYMPIC 2-1600
WEST COAST FACTORY: 5600 W. ARBOR VITAE ST., LOS ANGELES 45, CALIF. • OREGON 8-4969

Sales Offices in Principal Cities



This time by the makers of Kleenex* Pocket Pack Tissues for quantity production of Counter Display Cartons



the STANDARD BRIGHTWOOD Forms hinged-cover, telescope, trays, and tapered boxes in a wide variety of sizes at speeds up to 60 or more finished boxes per minute.

Manufacturers who produce their own boxes and cartons, as well as commercial box makers are sold on U.S. Automatic carton-forming machinery because they can rapidly turn out precisely-formed, solidly-glued boxes. The manufacturers of Kleenex Pocket Pack Tissues, use Standard Brightwood carton-forming machinery to make the attractive counter display cartons shown above. Each of their Standard Brightwood Machines turns out more than 60 display cartons per minute. Should a new design be developed or a different size be required, these Standard Brightwoods may be changed over easily and quickly to handle other sizes of cartons.

And it is this speed and versatility that appeals to the commercial producer who is called on continually to turn out varying sized cartons in large quantities and often on short notice. Whether you produce boxes for your own use or for others, it will pay you to learn the advantages you can enjoy when you use packaging machinery made by **US**. Write **US** today, giving complete details of your problem.

*T.M. REG. U.S. PAT. OFF. I.C.P. CO., CHGO.

U. S. AUTOMATIC BOX MACHINERY CO., INC.

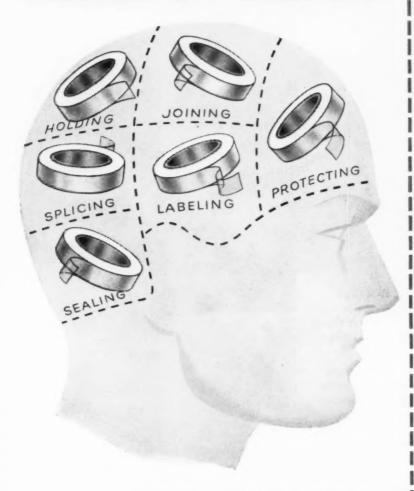
Owning and Operating NATIONAL PACKAGING MACHINERY CO. * CARTONING MACHINERY CORP.

122 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: New York * Cleveland * Chicago



When you think of saving... Think of TAPE!



Famous "Scotch" Brand Cellophane Tape is a time-saving, money-saving tool all over the plant! Remember, it's crystal-clear and it sticks tight at a touch—tighter than ever before. Use it for holding, joining, protecting—any of a thousand different jobs. Tape does it faster, better, cheaper!

The term "Scotch" and the plaid design are registered trademarks of Minnesota Mining & Manufacturing Co. \$1. Paul 6, Minnesota. General Export: 122 E. 42nd St., New York 17, N.Y. In Canada: London, Ont., Can.



LOOK what you can do with it!



SEAL BOXES—up to 40 a minute. Manually-operated "Scotch" Brand Box Sealer applies 1½-inch strip of "Scotch" Brand Cellophane Tape around side and bottom of telescope and full flap boxes when box is passed over sealing roller.



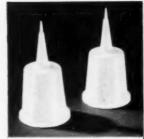
JOIN PACKAGES for special "combination deal" sales with "Scotch" Brand Cellophane Tape and a "Scotch" Brand Combination Package Sealer. Machine handles ¼ "to 1" tape widths, turns out 20 to 40 deals per minute.



PROTECT LABELS from damage with short strips of transparent tape. Holds label in place, preserves legibility. Whatever your special tape problem, there's a "Scotch" Brand tape to solve it. Write on your letterhead for more data or free test samples.



SEAL BAGS, too, with the "Scotch" Brand Box Sealer and "Scotch" Brand Cellophane Tape. Operation is simple, quick. Tape sticks tight to cellophane, leaves contents completely visible, package neat and trim.





NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS



TUPPER!

The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in every phase of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!



Tupper Seals are air and liquid-tight flexible covers. The famous Pour All and Por Top covers are designed for easy dispensing. They are made in sizes to fit all Tupperware containers.







When equipped with Tupper Seals, Tupper Canisters, Sauce Dishes, Wonder Bowls, Cereal Bowls and Funnels in various sizes are the most versatile reusable containers you have ever seen.

UPPER!

UPPER CORPORATION

Manufacturers of - CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

Factories, Laboratories and Sales Offices: Farnumsville, Mass., Orlando, Fla., L'Epiphanie, P.Q. Showrooms: 225 Fifth Ave., N. Y. C.

Address all communications to: Dept. MP-1

About 150 United States and foreign patents and patents applied for, plus numerous trademarks and patents applied for, plus numerous trademarks and copyrights, cover the design and manufacture of the various types of Tupper Seals and other Tupper. Products. Unauthorized manufacture of items covered by ucts. Unauthorized manufacture of items covered by Tupper patents will subject infringers to prosecution.

we stand "A high" with our customers



Consideration

Cooperation

Control

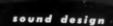
Confidence

ALUMINUM FOLLS, INC.



careful planning

precision production



efficient performance

BASIC INGREDIENTS for hogen food wrappers

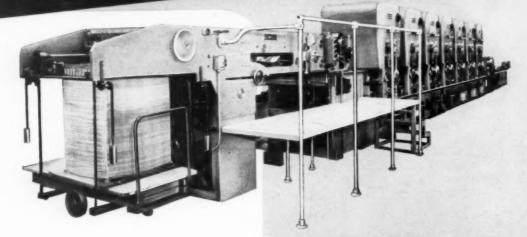
YOU GET THEM ALL IN WESTERN CARTON OVERWRAPS



WESTERN WAXED PAPER DIVISION & CROWN ZELLERBACH CORPORATION
San Leandro, California - East Los Angeles 54, California - North Portland, Oregon
MANUFACTURERS OF FLEXIBLE PROTECTIVE PAPERS FOR THE FOOD INCOME.

A ROTOGRAVURE PRESS that Delivers Sheets

Times Faster!



NOW-for the first time-you can take advantage of the high speed of modern rotogravure presses for label and wrapper printing. Improved Champlain Sheet Delivery - operating inline with a Champlain Rotogravure Press-delivers square-cut sheets with 1/64" accuracy 11/2 TIMES FASTER THAN ANY OTHER STANDARD SHEETER!

Standard Sheeter Sizes	Speeds*								
	Glassine & Paper Backed Fail		Label Paper		Heavy Paper & Cardboard		Max Width	Мак	Min
	Er Per Min.	Sheets Per Hr	Ft Per. Miri	Sheets Per. Hr.	Ft Per Min	Sheets Per Hr	width	Length	Length
20"	400	11.000	450	17.500	.500 up	14.800			
16"									
14.6									
-									



ADVANTAGES?

Here are just a few:

For Rotogravure: high-speed precision-register printing on practically any stock in multiple colors -ideal for meeting the increasing demand for high-quality, high quantity wraps and labels for packaged products.

For Improved Sheet Delivery: greater production with inline economy.

- . HIGH SPEED ... from 8,500 to 12,500* sheets per hour-chart at left shows full range.
- · ACCURACY...cuts consistently square sheets to 1/64" or finer accuracy from any stock-any speed.
- SHEET PROTECTION ... exclusive individual sheet handling insures accurate jogging - undamaged front edges.
- . JAM-PROOF ... separate handling of each sheet with continuous individual movements acts as selfclearing mechanism - DANGER OF TEARING, FOLDING, BUCKLING, OR COCKING IS PRACTICALLY ELIMINATED.
- NO WASTE TRIM ... easily adjustable to any sheet-width or length within the range of the press. This feature-plus consistent accuracy-produces sheets ready for the ream cutter.
- VERSATILITY...handles paper, board, foil, and most specialty stocks with equal ease.

Write today for catalog of Champlain press equipment and full information on Champlain Improved Sheet Delivery. Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J. Chicago Office: 520 N. Michigan Avenue, Chicago 11, III.

A BRAND NEW NONIWARP FLEXIBLE GLUE WITH

FLYPAPER TACKINESS...



For tight wrap or loose wrap; semi or fully automatic production of fine set up boxes—Swift & Company announces a new and versatile high test glue with customized properties of high and prolonged tack.

ECONOFLEX, as the name implies, is designed to save you money by affording quick, strong initial tack for maximum production; plus unique qualities of high and prolonged "fly paper" stickiness, quick melt down and excellent machinability . . . so necessary to modern high speed production.

ECONOFLEX is a flexible, high solids—low viscosity animal glue that will rate high with your operators for its ability to produce a free flowing, lasting film that will not build up on glue rollers.

Why not take advantage of this opportunity to realize maximum production efficiency . . . obtain "fly paper" tackiness in your gluing operations?

Fill out the coupon below for information on a trial quantity of ECONOFLEX.

One demonstration is better than a thousand claims



Another of Swift's Products for Industry

USE THIS COUPON FOR FURTHER INFORMATION

Swift & Company Adhesive Products Dept. 4115 Packers Avenue, Chicago 9, Illinois

Please send us your booklet on ECONOFLEX together with prices and shipping information.

Firm Name.....

Address

City.....State.....State....

Name......Position....





MODEL "EG" UNIVERSAL FILLER

Newest design. Fully streamlined. Fills by gross weight or by packing or by measurement. Handles powders, granulars or Various pastes. types of containers. 1/4 oz. up to 5 lbs. or more. Production 15 to 30 per

STOKESFEED PAPER BOX MACHINE

A complete paper box gluing, feeding and wrapping unit. Made in two sizes—Model "B" and Model "H". Completes up to 40 boxes per minute. Only one operator required. Model. "B"—maximum: 20" x 15" x 4"; minimum: 6" x 4" x ½". Model "H"—maximum: 15" x 10" x 234"; minimum: 4" x 134" x ½".



Machine for powders or granulars. Entirely automatic. Production 60 per minute. Up to 1 lb. quantities. Also made in four-station type, Model "HG-86-87". Production 120 per minute.

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For free-flowing products. Feeds, fills and seals cartons, both top and bottom, in one continuous operation. Cartons $5^{11}\%$ x $3^{11}\%$ x $1^{11}\%$ to 8^{12} " x 6^{11} x $2^{11}\%$ ". 60 to 200 or more per minute. One operator.



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Bulletins upon request. If you have a packaging need, send sample of your product and our engineers will make proper recommendation.

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Equipped with auger feed. Forms, fills and heat-seals the package, taking printed or unprinted web from roll stock. Volume to 56 cubic inches or 1 lb. 50 to 120 packages per minute.



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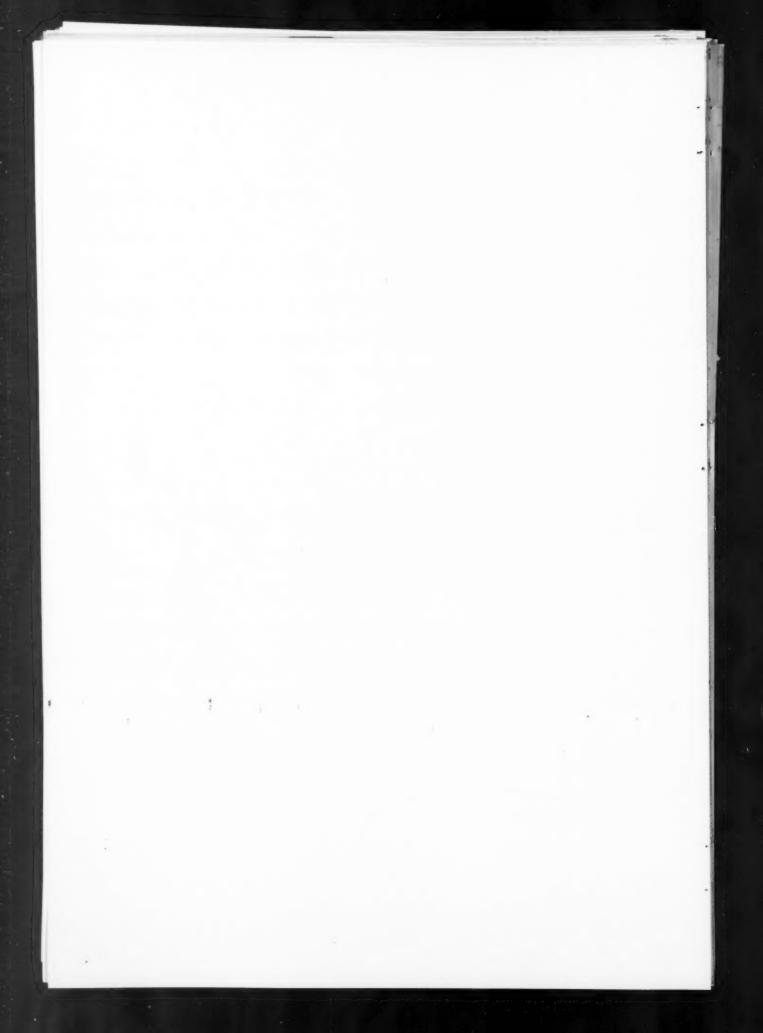
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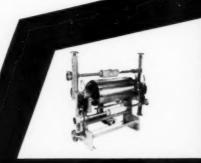
6 new

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Proved in operation and now available to you, the six machines shown here are the latest additions to the finest and most complete line of equipment for converters. Write to Dilts at Fulton for information on the Dilts line of converting equipment. Ask for Bulletin 311.



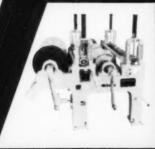
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PARTY PAPERS . PRINTED BANDS . CORRUGATOR'S

MODERN PACKAGING



MULTIPLE FUNCTION, keynote of many current packaging advances, is exemplified by this foil-lined folding carton in which Holiday Brownie Mix is conveyed, mixed, baked, served.

Guideposts to 1954

Abundant resources, a wealth of new ideas point the way for packaging in the mounting competitive battle

Many trend-pointers to help the packager do a better job in 1954 can be found in the packaging developments that took place in 1953. Some of them—like the other rising stars of recent years—may very well carry your products to new sales heights.

On the other hand, the packager's world is not all new materials and equipment. There are numerous sobering challenges in the merchandising problems that loom ahead and it is a safe prediction that packaging as a science may be asked—to an extent

greater than in any recent year-to help keep the production cart from getting ahead of demand.

The consumption of packaging materials in nearly every category raced ahead at, or near, an all-time peak pace last year. This prosperous course reflected the sustained tempo of business in general. It also confirmed Modern Packaging's prediction of last January that packagers faced a period of expanding opportunity.

Opportunity will be bigger than ever in 1954, in the sense that the

packaging man now has almost-unlimited opportunity to create outstanding packages that will impel and increase sales, rather than packages that are merely "good enough" to hold competitive position.

The talk of a dip in the business curve this year has been just enough to stir top management in many cases to the point of cutting the profit margin, if necessary, to put more into the package as a selling tool. And, as last year, there is an abundant supply of everything needed for packaging and an ex-



PHOTO COURTEST CHESLAM CORP.

NEW MATERIAL of vast potentialities—polyethylenecoated cellophane—shown packaging cleansing powder, and tomato sauce and cheese for pre-baked pizza crust.



NEW TREND may be set by the Quaker Oats Co.'s cereal cartons which are letterpress printed with a luminescent ink that glows under the blacklight fixture visible at the top of the stack.

citing array of new ideas to choose from

Business sentiment at year-end was strengthening as economists, who previously had convinced themselves that the postwar boom just couldn't last any longer, took a new look at the figures. The more optimistic view showed the national economy still forging ahead with tremendous momentum sustained by record-high employment (63½ million), a new high in personal disposable income (\$250 billion) and a peak annual rate of personal savings (\$17 billion).

However, there was no escaping the fact that these dollars were becoming harder to woo. The consumer showed signs of becoming satiated and was more insistent on quality and value. He displayed greater interest in products which, as evidenced by the package, reflected change and improvement.

It is certainly necessary, now more than ever, for the packager to ask:

Are my packages geared for a period of sharp selling?

Am 1 taking full advantage of the efficiencies and cost-reduction potentials that might be afforded by the materials, methods and equipment available?

Are my packages subject to a continuing program of design study and improvement to keep them current with changing marketing conditions and to exploit potential new markets?

These are steps that must be taken to control your competitive position should there be a general slackening in demand or—more important—an opportunity to sell an increased volume of goods. If your 1954 packages have more sales appeal, if they make it easier for the shopper to buy and use your product and if they can help sell the idea of better value, you are prepared to help carry your share of the load package merchandising must shoulder if it is to keep demand ahead of supply.

The materials, equipment and techniques to help packaging advance to new merchandising accomplishments are abundant. Packaging developments during the calendar period just ended were exciting and numerous. The popular belief that full production leaves less opportunity for development finds little support in the recent experience of busy suppliers, processors and users of packaging materials and equipment. Instead, it was apparently realized in numerous quarters that full pipelines meant that future sales would have to depend on improvements designed to open up new opportunities or to permit production with greater efficiency. Moreover, suppliers are now in a better position to consider the packager's special needs and a greater willingness to tackle the new or difficult requirement is reported.

Although the list is by no means all-inclusive, the new packaging trends and developments that were of widest interest in 1953 might be set down as follows: ° The introduction of polyethylenecoated cellophane and expanding use of other coated flexible materials.

 Development of glass aerosols and the movement of aerosols generally into new product fields.

 Tear tapes for pre-formed bags and for shipping cases.

Rapid growth of low-cost, vacuum-formed, contour-shaped plastic packaging.

New types of molded polyethylene shipping containers.

 Adoption of ovenproof foil and fibre cartons for products subject to baking or reheating.

 The trend to fibreboard replacing wood shipping containers in the produce field.

 New usefulness for unit and strip packages, including applications to liquids.

 Increased attention to self-service design for drugs, toiletries and rack-jobbed products.

 Trend to fine-screen package printing and a new method of pictorial printing on corrugated.

 Introduction of the first blacklight packages with a new type of luminescent ink.

Significant advances in machinery, including the first air-control weigher and high-speed equipment to print, form, fill and seal polyethylene film.

• Progress in mechanized handling of polyethylene bottles.

 Application of desiccants to drug packages.

 Development of a completely flexible collapsible tube of vinyl.

^aFor further Information on any of these subjects, as reported in the last year, address the Reader Service Dept. of Modeun Pack-

 New uses for cellulose bands; automatic application.

 New dripless can; increased use dope-seamed, tinless cans.

 New, functional applications for molded plastic packages.

 X-ray fill inspection for highspeed can lines.

 Wider application of VCI (volatile corrosion inhibitors).

 Advances in shipping, military and industrial packaging.

New or expanding applications, in

fact, involve just about every material and container form used in packaging. Some of these will be discussed in greater detail in the following review. (Parenthetical references throughout this article identify articles in previous issues of Modern Packaging where primary reference will be found.)

New combination materials

Because of the extremely wide usefulness of a new transparent material with improved protective and handling qualities, the introduction of polyethylene-coated cellophane must be accounted one of the real packaging highlights of 1953. The extrusion-coating process, previously used to deposit a film of polyethylene on paper and glassine, provides a combination of the qualities of the two materials at a cost obviously lower than would be involved in laminating two separate films. Absence of a laminating agent in the

ALL THROUGH THE HOUSE, polyethylene plastic bottles offer squeeze and spray convenience for the whole family,



A few of the stars of



Glass-like fine pottery



Polyethylene container liners



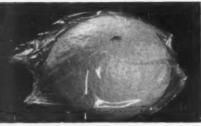
VCI wrap for blades



Shrink-wrap for sausages



Vacuum-formed plastics



Film-wrapped citrus



Tear-tape shipping case

material permits exceptional clarity.

Polyethylene thus combined with cellophane has the rigidity necessary for efficient machinability which unsupported polyethylene film lacks. It has greater strength and resistance to temperature and humidity changes than can be had in cellophane alone. The cellophane can be pre-printed for greater permanence on the coated side prior to coating. The cellophane acts as a barrier to prevent sticking to the jaws of the heating bars and the polyethylene surface, of course, provides excellent heat seals. Costwise, it will not compete where a single ply of either of the materials will suffice. But it offers significant new possibilities for specialty packages where the combination of clarity, strength and handling on automatic equipment are

The new material is currently being employed for liquid and detergent packs in unit-of-use sizes; for instruments, cigarette lighters, textiles and various food products. But the potential of its applications in the packaging field has, as yet, barely been scratched.

Meanwhile, the entire field of flexible materials, involving single webs, laminations and special surface treatments, has surged forward. The continued rise of unit and strip packaging, with its many special demands on functional and protective materials, has seen to that. In addition, many new types of products and new marketing opportunities have spurred considerable interest in flexible packaging materials.

As a result relatively new arts, such as laminating materials by means of vinyl-type and synthetic-rubber resins in solvent solution, have been developed to help meet today's ex-

acting requirements for flexible materials that assure longer shelf life, provide better barriers against moisture or oxygen and take on new chores like that of packaging liquids in envelopes

Better decorative values are also developing. Among the several innovations of interest are (1) the use of stir-in dry-color pigments to make the processing of colored coatings more practical, faster and less costly and (2) the advent of "optical bleach" coatings consisting of fluorescent dyes and stabilizers to prevent dulling that occurs when white paper surfaces are varnished.

Unit packages to the fore

One of the spectacular trends in flexible packaging is the appearance of more liquid unit packs. (September, 1953, p. 89.) Numerous products, such as maple syrup, soy sauce and ketchup, have been added to the growing list of those that have found the film pouch practical for liquids and semi-liquids.

Another trend has appeared in the field of industrial packaging, where unit packaging is speeding the assembly and handling of parts. General Motors, using automatic machinery and cellophane pouches to package hardware parts for automobile assembly, is chalking up impressive savings in time and cost. (June, 1953, p. 126.) Bearing manufacturers have recently adopted polyethylenelined glassine to meet the exacting protection requirements of their products and at the same time afford machinability for automatic wrapping. (April, 1953, p. 133.)

Advances in flexible packaging are numerous in the food field. A ventilated, automatically applied Pliofilm

the 1953 packaging crop



Practical molded plastics



Flexible vinyl tubes



Pre-applied tear tapes

wrap that appears to keep lemons in perfect condition for five months or longer made its advent in California. (March, 1953, p. 98.) The success of this wrap is being carefully studied throughout the citrus-packing industry.

Cellophane bags with tear tapes pre-applied have greatly extended the use of this convenience feature. Previously tear tapes were available only in automatic operations where cellophane wrapping was done in-plant as part of the packaging operation. Bags with pre-applied tapes are now being used for bacon, candy, cookies, produce, textiles, etc. (April, 1953, p. 130.)

A vacuumized acetate-Pliofilm laminated envelope adopted by the Gotham Hosiery Co. has demonstrated a new use for flexible vacuum packaging—simply to make sure that the product stays neatly in the package. (February, 1953, p. 82.) Flexible vacuum packaging continues to show growth in food packaging, both in the United States and abroad. (May, 1953, p. 110.)

Strip packaging (unit-of-use products or portions packaged in a strip of unsevered compartments) has found new applications. Products newly adopting this method, which inherently involves volume production on speedy automatic machinery, include cookies, auto fuses and a trayservice unit containing, alternately, sugar, salt, pepper, toothpicks and gum. (September, 1953, p. 89.)

It is a safe prediction that many products will be carried to new levels of success in 1954 by adopting a unit package or its multiple form, the strip package, because they stress convenience and protection, promote sales, are economical to produce and

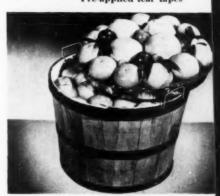
lend themselves to current demands for smaller units with effective display possibilities.

Plastic packages

The breadth of the plastics field in packaging assures a range of significant advances through any given period. Last year saw the rise of vacuum forming of plastic sheet. The U. S. Rubber Co., for example, adopted vacuum-formed, contour-fitting spheres of cellulose acetate sheet for its top line of golf balls. (June, 1953, p. 120.) The unassembled package consists of hemispheres in strips of three. The halves are sealed with a circumferential fin seal produced by an interesting new type of high-frequency equipment. The complete package of three golf balls offers outstanding advantages for display, protection and carrying ease.

The package is an extension of the acetate "blisters" or domes now widely used with carded merchandise. Recent developments include methods that permit use of the merchandise itself as a mold for the package, thus providing special advantages for items such as instruments, toys, hardware and any rigid product that can benefit from a contour-fit, visibility package. Numerous plastics, including butyrate, lend themselves to this method. The entire development will bear watching in the months immediately ahead.

The vacuum-formed package also has interesting applications for food products, as is demonstrated by an ingenious container that employs a shaped vinyl sheet to mold oleo, butter, jelly, etc., into fancy contours. (May, 1953, p. 90.) The Kraft Foods Co. predicts further development of the type of "portion-control" packaging which it has adopted for in-



Foil tray for fruit



Extruding can



Package that molds product



Vacuum-packaged hosiery

dividual servings of spreads and garnishes, involving vacuum-formed cups of vinyl sheets.

Plastics in packaging have shown progress in other directions—including the introduction of a transparent polystyrene container for ice cream (February, 1953, p. 89.) In general, 1953 was notable for a wealth of more practical applications of moltled plastic containers, which has resulted in taking this type of package out of the realm of mere novelty. (December, 1953, p. 90.)

Polyethylene containers continue to thrive on their versatility of fabricashippers and tare weights as well. (October, 1953, p. 133.)

A new kind of flexible tube—a dipped seamless construction of vinyl plastic—is finding a special place as a single-use container for hard-to-contain products. (October, 1953, p. 114.) It is initially being used for paint colors, Easter-egg dyes and for dental-impression material. Durability, product visibility and easy dispensing are among the advantages claimed for this novel tube. Its specialty applications are not a threat to conventional metal tubes, for on a basis of function, economy and ease of packaging,

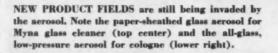
housewife can put the package into the oven for pre-heating and it can then go directly to the table for service if desired. The vinyl-coated paper container, of course, had previously won an important place for itself in the packaging of milk and ice cream. Recently the total of additional products employing this container has risen to 250 and the figure is said to be growing still larger.

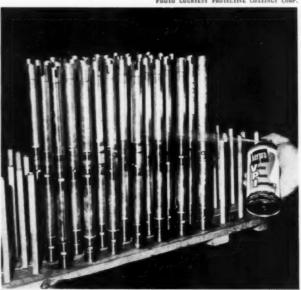
Aluminum foil

Convenience packages offer plenty of room for further exploitation of the properties of aluminum foil. Foil pans

PHOTO COURTEST PROTECTIVE COATINGS CORP.







PACKAGE FOR PACKAGING is this new aerosol bomb container for VCI (vapor corrosion inhibitor) crystals. The product is illustrated here being sprayed on metal parts prior to being packaged, for corrosion prevention.

tion and application. One promising development saw double-wall polyethylene jars coming into greater prominence (June, 1953, p. 105.) A new one-piece molded polyethylene drum, in a range of 5- to 55-gal. sizes, is being tested for chemical shipments. The drums are employed as inserts in steel shipping containers. A cube-shaped version that inserts in a corrugated carton is being used in the export shipment of cola syrup. In addition to excellent protection for numerous critical products, the new polyethylene container liners offer potentials for reducing initial costs of metal tubes have long been recognized as a nearly perfect package for certain products. Incidentally, lower tin prices may be in prospect this year to encourage some return to a greater use of tin in metal tubes.

Growing demand for convenience packages, such as those that permit processing and/or pre-cooking of foods, enabled the vinyl-coated liquid-tight paper container to set a fast pace of growth last year. Because of the type of coating, the container with-stands wide temperature extremes. It can be used as a container in process baking or for quick freezing. The

and trays, and those of special foillined paperboard construction, have been finding new uses and users. A packager of frozen pies and croquettes has recently adopted new automatic equipment for closing a paperboard cover on a foil tray. The installation is a further step toward high-speed food packaging in foil trays. (December, 1953, p. 118.)

Another innovation involves the use of a heavy foil tray on the top of a conventional fruit container for the facing layer of apples and citrus fruit. The bright foil tray adds greatly to display appeal, but is even more im-

portant because of its simplification of packaging procedures. (August,

1953, p. 112.)

A British firm has originated a quart-size aluminum tube for antifreeze and motor oil. This extruded container, featuring a pull-tab opening device, is made like a tube, looks like a bag and functions like a can. The conventional can would appear to have the advantage costwise, not to mention other packaging considerations, but it must be pointed out that any new package form such as this usually has specialty applications that can carry certain products to success. (September, 1953, p. 124.)

A foil-lined carton for baked goods, which made its debut last year, is another of those ingenious packages that eliminates the use of an extra pan for baking. The batter for brownies or cookies is mixed in the foillined carton, which then serves as a baking pan. After use it is discarded and thus eliminates the troublesome problem of scouring the pan. (Octo-

ber, 1953, p. 110.)

Packages like the foil-lined baking carton which serve multipurposes are indicative of what is probably the biggest new dimension in packagingthat is, asking the container to take on some additional function, so that it displays better, performs some extra chore or makes the product more efficient or convenient for the consumer to use.

Aerosols

The aerosol package offers perhaps the most dramatic example of the trend to provide built-in extras in container performance. In 1952 some 60 million non-food aerosols and approximately 100 million food aerosols were produced. In 1953 an estimated 125 to 150 million non-food aerosols alone were produced.

Meanwhile, the first glass aerosol appeared last year. It employed a fibreboard safety sheath and introduced a new three-phase principle of operation for aqueous-type products. (January, 1953. p. 90.) More recently, an all-glass, bantam-sized, low-pressure aerosol for cologne was introduced in export trade. (December, 1953, p. 194.) Production for domestic use is now under way.

One authority estimates that the all-glass aerosol-combining dressingtable attractiveness with push-button dispensing efficiency-could go to 250 million units within two years-a total nearly equal to the current production rate for all types of aerosols. Glass aerosols with higher pressures, protected with a plastic jacket, are also on the way.

Meanwhile, the conventional type of metal-can aerosol is continuing to boom. The pattern of progress has previously been well outlined, but some of the newer products include burn lotions, flower tints, foot sprays, shoe dressing, belt dressings and the like. The stars of 1952, such as the aerosol shave, have shown continued

impressive growth.

A note of concern was caused in aerosol circles in the latter part of the year by a temporary shortage of Freon 114,† caused by heavy demands on the part of the Atomic Energy Commission. Expansion of Freon production facilities, announced last July, is scheduled for completion by April 1. Barring sizable increases in Government requirements, supplies of Freon 114 will be adequate on or before that date, according to the latest reports.

Developments in food aerosols have so far not come along so fast as those in the non-food field. But extensive experiments are being conducted, it is said, with aerosol packaging of ketchup, mayonnaise, and waffle and

pancake mixes.

A metal container that employs a screw-type device for extruding a caulking compound appeared last year. It is designed specifically to make the dispensing of heavy-consistency products easier. Applications involving products for the home re-

†DuPont trade name for its low-pressure pro-pellant, which is especially important in formu-lations for foam-type aerosols and for those employing low-pressure glass containers.



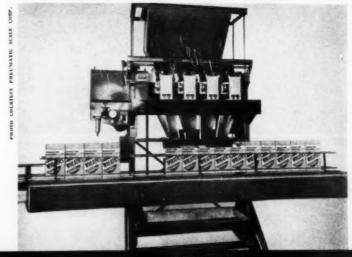
BETTER PRINTING for corrugated, pictorial and multicolored is exemplified by shipper for Dominion coffee maker. Metallic ink gives striking realism. New method achieves tonal graduations without the danger of crushing the container stock.

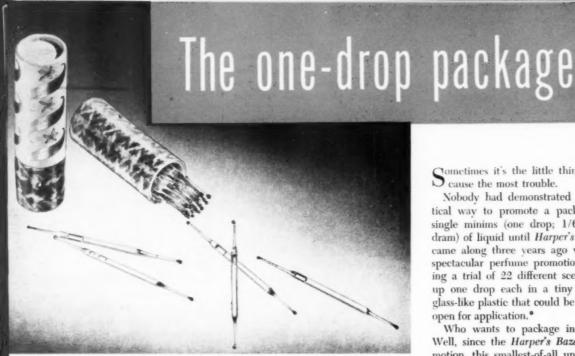
pairman and for industrial users would seem logical. (April, 1953, p. 121.)

Glass containers

The great appeal of glass is the endless opportunity this material offers in the packaging of products that require an extra degree of protection and compatibility, which are good to see or call for new and beautiful container shapes and designs. On the latter point, note how the entire liquor industry has been thrown into a new competitive situation through a sudden trend toward (This article continued on page 190)

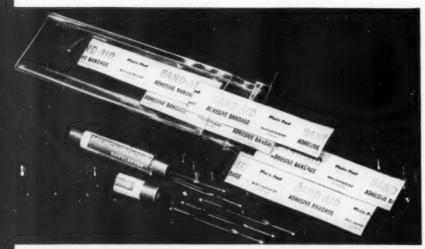
AN OUTSTANDING NEW MACHINE is air-control weigher which gives new precision to the filling of light, dry products.





COMPACT CYLINDER filled with 24 Snips or ampoulettes, each containing a single application of Lentheric Tweed perfume, provides an especially convenient method for carrying perfume in the purse.

The tiny "ampoulette" that holds a single minim of liquids finds varied uses as the smallest of all unit packages—for both sampling and sales



MERCUROCHROME-FILLED ampoulettes are indicative of the unusual applications for which these minuscule unit packages are suitable. Packaged with five Johnson & Johnson Band-Aids and a first-aid booklet in a polyethylene tube with fold-down closure, the completed package is an official pocket first-aid kit distributed by the Boy Scouts of America.

S cause the most trouble.

Nobody had demonstrated a practical way to promote a package of single minims (one drop; 1/60 of a dram) of liquid until Harper's Bazaar came along three years ago with its spectacular perfume promotion offering a trial of 22 different scents put up one drop each in a tiny vial of glass-like plastic that could be broken open for application.

Who wants to package in drops? Well, since the Harper's Bazaar promotion, this smallest-of-all unit packages has become increasingly popular for sample or single-use quantities of expensive perfumes and has found additional application to such variegated things as an antiseptic for Boy Scout kits, a wake-up inhalant solution for drowsy motorists, a bath oil and a hand lotion.

And some interesting new features have been devised both in the container itself and in the means of handling it. According to the supplier, who holds patents on the packaging machinery used in handling the product, the "ampoulette" is neither glass nor plastic, but is a slow-cooling mixture without the surface tension of glass and brittle enough to break clean when bent. In use, both slender ends of the container are broken off, providing the capillary action necessary for the liquid to flow.

The old problem of finding some way to print on the small, slender surface of the ampoulette has been solved for the first time this year. A difficulty during the Harper's Bazaar promotion was that the various fragrances had to be identified by color coding the bulb-like ends and this could be confusing. Now colored ends are still used for decorative purposes, but the ampoulette can be printed in one color for an additional cost of about 15%.

While this ingenious type of package has been restricted to the freeflowing, thin liquids such as perfume, a method has been devised for ejecting the more viscous products-hand

[&]quot;See "Minuscule Samples," MODERN PACKAGING, Jan., 1951, p. 81.



CARDED SAMPLES of one-drop applications of perfume have been made feasible through ampoulettes. Samples such as these are attached to cards with colored stickers or ordinary pressure-sensitive tape, or slipped through die-cut card.



COLOR PRINTING of tiny ampoulettes is now possible, making for easier identification of contents. This "Perfume Typer" kit distributed by Nips, Inc., containing an assortment of perfumes identified by perfume type on cartridges and by brand name on the plastic box, is designed to help women find the perfume type best suited to their personalities. This is one of the first applications of printing on ampoulettes.

lotion, for example—out of the slender tube by breaking off both ends and applying a tiny dropper-type rubber bulb to one end. Thus, the small amount of air pumped by the bulb is sufficient to force the liquid out of the container.

Packaging of perfume continues to be the most outstanding use for the ampoulette. Cosmetic houses feel that this unusual packaging form and its unique method of application attracts a great deal of attention at the perfume counter. It adds value to the perfume and is easy and inexpensive to distribute. Hermetically sealed to prevent contamination or leakage, it is easy for the consumer to carry in her purse, to open and to apply.

Perfumers find it particularly suited for sampling and have been experimenting recently with new methods of presentation. A frequently used method is to attach one of the ampoulettes with ordinary pressure-sensitive tape to a card or folder which describes the fragrance in detail. Yardley attaches samples of Lavenesque and Bond Street perfumes to exquisitely designed folders, using a colored sticker in place of pressure-sensitive tape. Dorothy Gray attaches its Wedgwood perfume to a card outlined in the same shape and resembling the design of its Wedgwood Blue containers.†

Somewhat troublesome has been the customer who may succumb to the temptation of scooping up a handful of samples. With this in mind, Rexall has created a new counter display fixture which makes over-enthusiastic sampling difficult if not impossible. It is of folding-carton construction with a header and a die-cut platform containing a dozen cartridges, each filled with 24 Perfume Nips of White Mink. A separate metal cartridge, permanently mounted to the platform, holds sample ampoulettes imbedded in a base of plastic so that when one is withdrawn, an end is automatically broken, forcing immediate application.

Small in size, besides being inex-

†See "Shades of Wedgwood," MODERN PACKAGING, June, 1953, p. 106.

pensive in comparison with most premiums, the minuscule sample of perfume suggests all kinds of tie-in deals with other products. One of the most recent is a cellophane-overwrapped package of Parkay paper napkins, a product of the Nashua Corp., Nashua, N. H., which includes three Tweed Perfume Snips by Lentheric, Inc., New York. The perfume is mounted in a die-cut card and held in place with pressure-sensitive tape. A checkered design on the napkin corresponds to that on the Tweed perfume carton. For the napkin manufacturer, the tiein is an unusual way to call attention to his quality line of napkins; for the perfume manufacturer, it is an inexpensive form of sampling.

New variations of the Harper's Bazaar idea have been found. In the latest promotion, a "Perfume Typer" distributed through the conventional retail outlets, contains an assortment of perfumes to help women find the type of fragrance most compatible with their personality type. Included in a stock-size, hinged plastic box are



COMBINATION UNIT has made a hit at perfume counters. Set contains Lanier's Midnight Madness cologne in a regular bottle and ampoulettes of perfume in a lipstick-style carrying case.



MERCHANDISING METHODS of presenting perfume in these smallest-of-all packages have improved greatly. Rexall counter display unit contains a dozen cartridges, each holding 24 "nips" of perfume in addition to a cartridge for customer sampling. Nips in the sample cartridge are imbedded in a plastic base so that when they are withdrawn, the end is broken and the perfume must be applied immediately.

seven tubes, each containing five ampoulettes of a different perfume type (not identified by brand) and, as a bonus, 30 additional ones identified by brand. To guide the consumer through the test, the box contains "McCalls Perfume Guide" and another booklet, "How to Type Yourself for Perfume." By mailing a postcard enclosed, the customer can find out the brand name of the fragrance she has found best for herself.

The Perfume Typer, which is advertised as "a \$5 value for \$2," is produced in cooperation with 79 perfume manufacturers and is as much a sampling campaign as it is a commercial package. Many ampoulettes originally used for sampling have been later incorporated into commercial packages.

Lanier, New York, has a plastic cartridge, somewhat larger than a lipstick case, filled with 40 applications of Banos Bouquet bath-oil concentrate. The ampoulettes are imbedded in the plastic base of the cartridge, much like the system used on the Rexall counter-display fixture. The same company uses a cartridge about the size of a lipstick case for its Midnight Madness pertume. Lanier has also combined both a bottle and a cartridge of individual applications in a hinged set-up carton.

While perfume manufacturers have been the biggest and most consistent users of these unit packages, the idea is gaining ground in other fields.

A pocket Kit for Cuts, distributed

by the Boy Scouts of America, contains a cartridge of five ampoulettes filled with mercurochrome. The kit, a polyethylene tube with a fold-down tie closure, also contains five Johnson & Johnson Band-Aids and an illustrated first-aid folder.

A new product called Snap-a-wakes, marketed by the Texal Corp., New York, is an anti-drowse solution in an ampoulette encased in a tubular braid. A drowsing truck driver or motorist breaks both ends of the ampoulette and the solution saturates the braid. One or two whiffs is said to be sufficient to chase sleep away. Packaged five to a card, Snap-a-wakes are sold wherever drivers are apt to stop, such as gasoline stations, restaurants, auto stores and so on. They have an advantage over pills and the like, the company says, in that the driver can use them without water.

That the ampoulette is a highly successful, recognized method of sampling and selling perfume and other liquids in the smallest unit quantities seems evident. That it has and is growing as a packaging form outside the perfume industry is also in evidence. New methods of printing the ampoulettes and of ejecting viscous products can be taken as signs that this remarkably small container will become even more important for its specialized applications.

CREDITS: Ampoulettes, filling and assembly, Nips, Inc., 116 E. 27 St., New York 16

NEW USE is ampoulette filled with "keep awake" solution encased in tubular braid. When both ends are broken, solution saturates braid and the drowsy motorist takes only a whiff or two to "Snap-a-wake," which is what the product is called.



TIE-IN SALE of Nashua Corp.'s Parkey paper napkins and three ampoulettes of Lentheric Tweed perfume calls attention of women shoppers to the napkins and provides a method of sampling the perfume. Design on napkins corresponds to design of the Tweed carton for a dramatic tie-in.

COATING - PACKAGE and method of opening, shown here in two typical shapes produced by the United Cheese Co. Dip coating consists of successive layers of wax, vinyl, wax and vinyl. It provides superior protection through shelf life and use, as coating may be folded back over the unused portion. Thermoplastic paper labels are used on packages.



Stripcoating for cheese

A built-up dip coating of special wax and plastic lacquer can be slit, folded back and replaced for protection

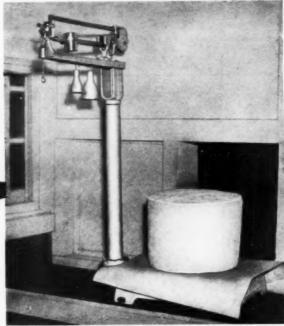
lthough cheese in its many forms A is one of the oldest foods in the history of mankind, with the art of cheese making going back many centuries B. C., the science of cheese packaging is relatively new. There is scarcely a type of packaging material -paper, glass, tin, cellophane, foils, molded or sheet plastics-which has not been used at one time or another in the consumer packaging of cheese. Thus it is interesting to note that one of the newest developments in consumer cheese packaging, consisting of a composite wax and plastic coating which can be slit open, removed and replaced for continued product protection, is basically an extension of techniques which have been used for some time to protect certain types of cheeses during the processing period.

The use of specially developed waxes-especially new types of flexible

cheese waxes-is fairly common in the trade for protection against mold, shrinkage and damage in handling. These improved waxes contain additives which improve their adherence to moist cheese surfaces, but the best practice is to dry the cheese properly prior to the waxing operation, which may be handled either manually or on suitable dipping equipment. The flexible waxes provide better protection than paraffin, which they have largely replaced, but more care is required in applying them and they dry more slowly. Since the way coatings soil easily and are likely to become tacky if cheese is not adequately refrigerated in retail display cases, they are customarily supplemented by an overwrap of cellulose acetate, Pliofilm, saran or other suitable materials, producing a finished package which provides good protection against mold

and spoilage of the product. This frequently involves a hand wrapping operation, due to the irregularities and size variations of the consumer portions.

About three years ago Robert A. Zuercher of United Cheese Co., Chicago, which manufactures a variety of cheeses at its plant in Brodhead, Wis., began studying the possibilities of a new-type package which would overcome some of the limitations of wax and overwrap type of packages. Mr. Zuercher also felt that other methods, such as heating the cheese before cutting and causing it to "sweat out" a protective film of butterfat prior to application of the wrapper, might be improved upon. It was recognized, for example, that however tightly they were applied, protective wraps had a tendency to "bridge" pockets and irregularities in the surSteps in production of stripcoated cheese portions



CHEDDAR WHEEL, fresh from the curing room, is stripped of wrappings applied prior to the aging process and scraped to remove any visible surface defects from the cheese. It is then weighed prior to being cut and packaged.

face of the cheese, trapping air and setting up conditions favoring the development of mold and spoilage. Mr. Zuercher's intention was to devise a type of package which could be applied conveniently on automatic or semi-automatic equipment and would facilitate dispensing and continued protection of the product in the home.

Conventional wax coatings were quite thin and lacked the mechanical strength to permit their removal and replacement. Mr. Zuercher theorized that a more satisfactory and permanent type of package might be made by dipping the consumer portions of cheese in wax or a similar material to build up a thicker coating that could be slit, removed and replaced for continued product protection.

Since the conventional types of cheese waxes were too tacky for this purpose, extensive experimentation led to the development of a composite coating made up of alternate layers of cheese wax and a specially formulated type of vinyl lacquer which is said to be completely non-toxic. Mr. Zuercher also designed special equipment to handle the actual application of the protective coatings and this equipment is now in regular operation at the Brodhead plant of the Palmer Pre-Pack Corp., a custompackaging service organization. Covered by pending patents, the equipment has been periodically refined and is expected ultimately to be supplemented or replaced by an improved installation which will provide a virtually continuous operation and be almost completely automatic.

At the Brodhead plant, the waxplastic coating-type packages are applied to consumer portions of several varieties of cheddar-type cheeses cut in wedges, half-moons and other shapes. The Flav-R-Fresh coating, as it is called, has received favorable acceptance in the trade, not only because of its convenience features, but also because it cuts shrinkage and substantially increases the shelf life of the product by minimizing the mold problem.

A large West Coast cheese installation operated by the Tillamook County Creamery Assn., Tillamook, Ore., is using a similar type of coating-package under a licensee arrangement with Palmer Pre-Pack Corp.

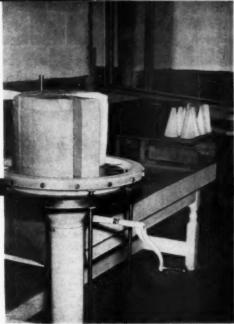
Experimental work indicates that the process may also be successfully applied to certain other types of food products such as pickles, smoked chubs, etc.

An accompanying photograph shows how the completed cheese packages appear and also indicates their replaceable feature. Thermoplastic labels, applied directly to the outer plastic coating, identify the product and carry weight and price information.

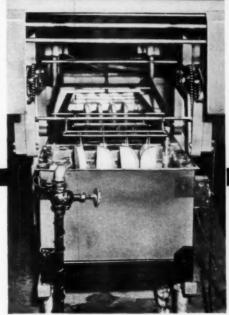
To open the cheese, the protective coating is simply slit with a sharp knife in such a manner that it can be folded back or lifted off. After the desired portions have been cut from the cheese, the coating is then replaced as might be done with a box or a molded plastic package. If handled with reasonable care, the package will not break and will afford excellent protection until the last of the cheese has been consumed. The smooth exterior surface of the package is quite-firm and completely non-tacky.

Opening instructions appear on the labels. With the half-moon shape, consumers are advised to cut through the coating on the rounded periphery and open the package, like a purse, by bending the top half back on the straight edge as a hinge. With the wedge shape, the suggested procedure is to cut off the extreme tip completely; cut through the coating on a straight line bisecting the wedge on top and wide end, and then fold the coating back for cutting and replace for storage.

For application of the wax-plastic four-layer coating, the consumer portions of cheese are conveyed automatically through successive dipping operations, with a brief drying period following the application of each of the two plastic layers. On the present equipment, the product is manually transferred to a second set of dip tanks after application and drying of the first coat of vinyl plastic compound. The improved installation, which will be more compact in design, will



SLICING into wedge shapes is done on machine that draws fine wires through cheese. In background are eight wedges on the pronged pallet that will carry them through dip packaging.

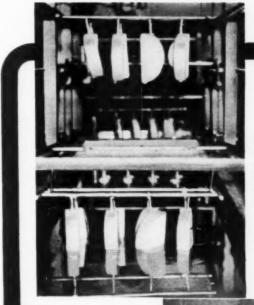


DIPPING APPARATUS, with half-moon portions being immersed, foreground, in molten wax. Just behind is vinyl tank for the second and fourth dips. Each dip lasts 2½ seconds.

eliminate this part of the process.

Each set of dip tanks is so arranged that the cheese portions, impaled on stainless steel carriers with projecting prongs, can be automatically lowered first into the liquid wax, maintained at a temperature of approximately 160 deg. F., then withdrawn for a brief interval and immersed in the plastic compound, which is held at a much lower temperature. The stainless steel wax-dipping tanks are electrically heated and the wax is pumped from the basement through pipes wound with electrical resistance wires to maintain the temperature of the liquid. The plastic compound is held in water-jacketed tanks at a temperature of around 60 deg. F., although this figure varies somewhat according to the type of cheese being coated. Close temperature control of both the wax and the vinyl solution is imperative to successful dipping operations. In addition, hourly viscosity tests are run on the plastic and corrections made by adding liquid plastic or reducer to the tanks.

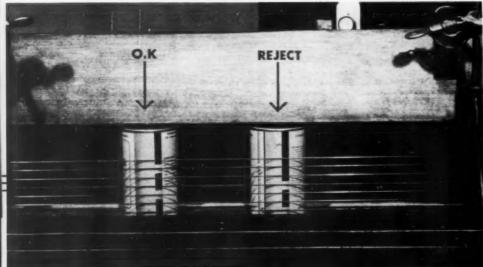
Prior to the coating operation the cheese is skinned by stripping off the bandage and the wax coating which was applied prior to the aging process is removed. The product is then scraped and any visible surface defects removed, following which it is weighed and cut into consumer portions. The cutting process is handled (This article continued on page 209)



CLOSE-UP of vinyl-dip tank, showing portions of cheddar being withdrawn. Timing of motion permits deposition of smooth coating, eliminates dripping.

FINAL STEP after removal of cheese portions from pronged pallets is weighing, marking and application of printed thermoplastic label. Through use of a conversion table, net weight of the cheese is determined, less allowance for weight of coating.

Electronic label inspection



LIKE PIANO WIRES, the detector wires form a sevenhigh wire fence along conveyor line, against which
cans are rolled to make contact with bare-metal gaps
in lithographed code stripe.
If the right wires contact
gaps, label is right one; if
wrong, the can is rejected.
Wires can be connected in
21 different combinations,
each of which will pass only
a given, coded can.

Darkroom chemistry—the mixing of quality chemicals for careful processing of exposed film and paper—is an essential and important final phase of all picture-making with camera and film.

And today, with the great change of recent years to packaged chemicals that simplify mixing of uniform chemical solutions, photographic manufacturers are increasingly aware of the importance of their precision ingredients. They know the days are gone when every darkroom used bulk chemicals of varying freshness and quality. The increased sale of packaged chemicals, with their assured purity, strength and uniformity, has made the measuring of ingredients a thing of the past for most photographic workers.

In these circumstances, the special importance of a correct label speaks for itself.

For Eastman Kodak Co., photographic chemicals do more than provide the links in a chain of scientifically produced materials. The approximately 160 kinds of Kodak photographic chemicals, moving to consumers in about 430 different packages, point up the company's self-imposed responsibility for quality of

O Assistant Superintendent, Chemical Mfg. Div., Kodak Park Works, Eastman Kodak Co., Rochester, N. Y.

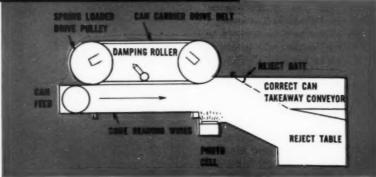


DIAGRAM of can-label detector unit shows location of drive belt that spins can against code-reading wires. Interception of photo-electric beam, a modification of the time-delay circuit, speeds operation of the reject gate. This latest model inspects 120 cans per minute.

product and for the quality of results obtained by the user.

A photographer cannot afford to find an incorrectly labeled can of developer in his darkroom. He relies on Kodak's careful testing and compounding of various developers, fixers, toners and other chemicals, and expects the right material in its proper package.

How did a new problem of checking labels come to the fore and what has Kodak done about it? The company's specialists frankly admit that prior to World War II, when Kodak photographic chemicals bore paper labels, correct labeling was achieved with relative ease.

In more recent years, however, with the advent of lithographed cans, the same specialists have had to face the problem of positive removal from the production line of stray cans with incorrect labels.

Stray cans come from several sources. They may stem from a slitting problem or from an occasional mistake in bundling units in the can factory during change-over from one label to another. They may result from the mixing of cans from broken bundles in a warehouse or from delivery of a wrong bundle of cans to a production area.

Regardless of source, the similarity

Eastman Kodak unit reads code with seven wire "fingers" and passes only cans that flash an agreed-upon signal. By M. J. REID*

of labels and a relatively high rate of filling cans make visual inspection extremely difficult. All the cans are lithographed with the familiar Kodakyellow background and family design.[†] And one size of can may carry as many as 15 different labels.

To solve the problem, all factors indicated the need for special photoelectric scanning or electronic equipment. After experimentation, an electronic method was chosen. Then Kodak engineers began the task of devising and building equipment to inspect the millions of labels on some 80 chemical products in lithographed cans.

Two problems required solution for successful electronic inspection. One was the printing of a code on all cans, the code to become part of an electrical circuit. The other was to build a machine that would reject positively all cans not having the correct code.

The first problem was solved by lithographing the code at the same time and with the same plates used to print labels on the flat sheet of tinplate. While Kodak cans are printed in four colors plus a varnish overcoat, it was found that printing the code in two layers of ink completely covered and insulated the metal of the can. It was necessary also to keep the bare areas of the code entirely free of printing and overcoat varnish in order to make good electrical contact. With a coding system suitable to become a part of an electrical circuit, Kodak engineers and packaging specialists turned to work on an inspection machine.

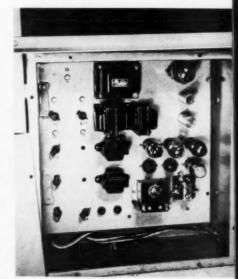
The final equipment, designed for use in the conveyor line between the can seamer and the case packer, has a detection unit as its heart and includes a timing device and a sorting gate. The machine adjusts to accommodate cans of various diameters and heights.

Before reaching the imspection point, cans pass through a specially designed filling and weighing device that meters a pre-weighed amount of material into each can. The weight is controlled and only those cans within the predetermined tolerances are permitted to pass along the line to a conventional can-sealing machine.

As the sealed cans approach the new equipment, the timing device, a conventional mechanism, spaces the cans and permits only one at a time to enter the detection equipment. The sorting gate is similar to those used on many machines for diverting containers on conveyor belts. The electrical detection unit consists of seven parallel wires. As a can enters the detection area a V-belt spins the can for greater bearing against the wires so that it rolls and bears along the wires.

By means of selector plugs, the wires can be connected in 21 different combinations, each of which will pass a given can. The electrical unit converts impulses from the code marks on the can into a signal that actuates the mechanism to accept or reject a can.

The seven horizontal wires are connected so that any two serve to identify a particular code or can. The remaining five wires are connected to serve two purposes. They provide a no-signal voltage when the can's (This article continued on page 205)



CONTROL BOX of grid-controlled rectifier, used to operate relay in pick-up wire signal. An adjustable time-delay network is built into the rectifier circuit so that the relay will be held closed long enough to enable can to pass through the gate.

LOOK-ALIKES illustrate difficulty of foolproof visual inspection. These are but nine of 160 different kinds of Kodak photographic chemicals, all with familiar yellow background and family design. Wrong chemical in can could play havoe in darkroom. Electronic inspector makes sure all labels agree with contents.



[†] See "Eastman Kodak," Packaging's Hall of Fame, Modern Packaging, June, 1952, p. 98.

Beer and



FROM A CONTINENTAL CAN FILM.



beverages

A look at the basic influences and current trends in two related industries that use 46 billion packages a year



Beer and soft drinks are distinctly separate industries having a common bond in packaging. With minor variations, they use the same basic packages, packaging machinery and merchandising methods. In some aspects of packaging they are strikingly parallel; in others they are curiously divergent.

These are giants of packaging. Beer and soft drinks together represent the biggest single end-use of bottles and in their consumption of cans they are second only to the processed foods. The brewers produced 21 billion packages in 1952, of which one quarter were cans. The beverages industry produced 25 billion packages in 1952, of which all but a handful were glass.

Because each of these industries has been highly successful in packaging, each in its own way, it may be profitable to examine them side by side, to see where they are alike, where they diverge—and why—and to discover, if we can, where they are heading, on the basis of present trends.

Their parallels are most apparent in current trends:

1. Both are moving away from returnable bottles to one-trip containers—both glass and metal—for the convenience of storekeepers and consumers. The trend is well established in beer and has a small but significant start in soft drinks. Nearly one-third of the packaged beer sold in 1952 was in throwaway containers (5.25 billion cans, 1.2 billion bottles), while less than one-fourth of 1% of soft drinks used throwaways at that time.

2. Both are heavy users of carryhome containers to encourage multiple sales, although the practice started in the beverage field.

3. Both are currently putting heavy emphasis on fine-quality graphic arts, from the unit package through to the shipping container, in an effort to win competitive advantage through eye appeal.

4. Both are making rapid progress toward completely automatic packaging lines—mechanized from uncasing straight through to recasing and, in some cases, automatic palletizing.

The outstanding differences are those dictated by tradition and character of product:

1. Beer has made its big swing from barrels to packaging only within the last 20 years since Repeal, whereas soft drinks from the advent of Coca-Cola in 1894¹ have always been primarily unit packaged. Today about 75% of all beer (annual production about 85,000,000 barrels) is packaged. The percentages have reversed themselves since 1934, when only 25% was packaged.

2. Beverages are less hidebound by tradition, freer to use modern tech-

niques like applied ceramic labeling on returnable bottles—a cost-cutting technique which has made little headway in beer.

3. The soft-drink industry, with the exception of a few giants, is essentially a "local" industry, made up of some 6,000 relatively small local bottlers, in contrast to the beer industry, which numbers only 312 companies—mostly big. Package-supporting promotion is generally handled on a bigger scale for beer.

 The soft-drink industry is harder pinched, at present, by economic factors, including price resistance, new flavor trends and low-sugar diet products.

Certainly the most talked-about packaging development in either industry in the last year has been the apparently successful introduction of cans for a few soft drinks. Beverage producers are under the same pressure that brewers experienced a few years

¹ See "Coca-Cola, "Packaging's Hall of Fame, Modern Packaging, Aug., 1951, p. 78.

GIANT of the soft-drink industry is Coca-Cola, accounting for 52% of all sales in that industry. The illustration below is reproduced from the August, 1951, issue of MODERN PACKAGING, in which Coca-Cola was nominated for Packaging's Hall of Fame.



back to relieve dealers of the cost and nuisance of collecting deposits, paying refunds, collecting and sorting empties.

Proponents of the can have visions of sweeping into the beverage industry on the same scale that they have achieved in beer—or maybe more. So far, consumer acceptance of the cans has been reported excellent. But there are reasons why the present enthusiasm for cans must be tempered with caution:

Soft drinks have little profit margin—much less than beer—to accommodate the admittedly higher cost of a one-trip container. Despite dealer pressure, one-way bottles have made comparatively little progress in this field. Although they cost more to begin with, returnable bottles are cheapest in the long run because they make up to 26 trips.

Small bottlers have a high investment in bottling and bottlehandling equipment, which they couldn't throw out overnight.

It remains to be seen whether the present interest in soft-drink cans among consumers—largely children—is on a novelty or more substantial basis.

Taste and pressure problems have developed with certain types of soft drinks in metal-although, to be sure, the can industry has proved highly resourceful in overcoming such problems in the past.

Beverages in cans

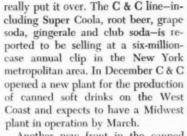
At least six brands of carbonated soft drinks have appeared in cans in the last eight months. But the history actually goes back some 15 years.

The Cliquot Club Co. attempted to package carbonated beverages in cans in 1938, but was unsuccessful because a metal container at that time had not been perfected to hold a carbonated beverage for the required time for merchandisable shelf life.

Canned soft drinks were thrown again into the spotlight briefly in 1950 when the Pepsi-Cola Co., under the leadership of Walter S. Mack, tried the same experiment, but failed due to metal shortages and the economics of the soft-drink industry which, at the time, was still clinging tenaciously to the 5-cent retail price.

But the move that really made the industry sit up and take notice came last summer when Mr. Mack—now president of Phoenix Industries and Cantrell & Cockrane—launched a new line of beverages entirely in cone-top, crown-sealed cans² with a heavy barrage of advertising and publicity that

² See "Cola in Cans," Modern Packaging, May, 1953, p. 203.



Another new front in the canned soft-drink market is opening up in the Far West, where three companies are marketing soft drinks in a new flattopped, beer-type can: Can-a-Pop by the Can-a-Pop Beverage Co., Sheridan, Wyo.; Shasta by the Shasta Water Co., Seattle, Wash., and San Francisco, Calif., and Belfast Root Beer by Belfast Beverages, Inc., San Francisco, White Rock has launched canned beverages in the Los Angles area. Some bottlers are reported to be testing 6-oz. cans for yending machines.

It is interesting to note that for three years one bottler franchised by the Pepsi-Cola Co., at Alton, Ill., has been using cone-top, cap-sealed cans in limited quantities of about 150,000 cases a year in a pilot operation right along with a regular bottling line.

Even the big parent companies are looking at the possible swing to cans rather seriously. Canada Dry has announced that it will have an experimental line in operation this year. Coca-Cola, which accounts for more than half of all soft-drink sales, isn't talking. It was Coca-Cola's long refusal to abandon the 5-cent bottle price which, many believe, held back the can development this long. And it is Coca-Cola's desire to protect the tremendous investment of its licensees in bottling equipment, soakers, cases for returns, etc., that will continue to make Coca-Cola resistant to the trend, some sources believe. Coca-Cola also has the priceless identity of its distinctive bottle.

There has not yet been sufficient market experience to determine conclusively the keeping quality of carbonated beverages in cans. Much research has been done in improving the linings to prevent contamination and in making stronger seams to withstand required pressures. However, questions are still raised as to the taste of various soft drinks in cans. Test data indicate that more than two parts per million of iron in soft drinks affect the taste. Liners must be proof against iron pick-up.

The cone-top can, it is reported, has



MOST TALKED ABOUT are cans for soft drinks—crown sealed, cone tops for Cantrell & Cochrane's line; flat tops for three West Coast brands in these handy sixpack carrier cartons.



MODERN PACKAGING



PROTO COURTEST OWENS-ILLINOIS GLASS CO

Carriers
have changed
store display
and buying habits

CARTONED UNITS permit self selection, encourage multiple sales. Old and new Krueger packages illustrate need for stepped-up label identity. Full-color printing on Canada Dry's Quinac carton indicates new emphasis on eye appeal to win competitive advantage. Multiple-trip aluminum carrier for Coca-Cola facilitates convenient handling of returnable bottles. Two-bottle carriers are gaining favor for king sizes, Seven-Up Family Pack of 24 bridges gap between sixbottle carrier and the standard case, Low-calorie soft drinks open up possibilities for single-trip bottles.





KRUEGER

KRUEGER

KRUEGER

RUEGER

BEER

PHOTO COURTEST CAT-LORD CONTAINER CORP.







PHOTO COURTEST SUTHERLAND PAPER CO.



"FACTS FOR FUN" packages for Esslinger's "Party Quiz" pack capitalize on popularity of quiz programs. Idea makes each package a conversation piece.



HOLIDAY CARTON for Canada Dry gingerale is reported to be a first in the soft-drink field.



GIFT APPEAL is given to Schaefer beer by these festive packages—24-unit carton and six-pack carrier—in red, white and green.



FIESTA PACK for Peter Hand Brewing Co. features an assortment of transparent color-lithographed cans decorated with Christmas motifs. By law of averages, each pack assures several different designs and colors.



MULTICOLORED cans with seasonal appeals have been used most successfully for Rainier Beer on the West Coast. The company's Jubilee cans were followed by these "Holiday" cans with traditional Thanksgiving and Christmas themes.

PHOTO COURTEST WALTER LANDOR & ASSOCIATES.

the advantage of holding more gas by volume. It has been difficult to produce a standard-size flat-top can, apparently, that will hold the 3½ volumes of gas which is recognized as standard for cola drinks and no flattop can is reported to hold satisfactorily the five volumes of gas required for gingerale and sparkling water, although such containers may soon be forthcoming. Where flat-top cans have been used so far, they have been used primarily for flavored sodas, which require smaller volumes of gas.

The cone-top style has another obvious advantage in that it can be run on bottle-filling and capping machinery. The present 5,905 local beverage bottlers have an average \$200,000 volume with a low profit margin and each has thousands invested in bottling equipment. It is worth noting that Cantrell & Cochrane is a new company and chose to install canning rather than bottling equipment; most of the other beverage producers who have pushed cans have had canning machinery available. Two on the West Coast are brewers.

Canned soft drinks are definitely more expensive. They usually retail for around 10 cents each for a 12-oz. can—about \$1.80 to \$1.90 a case of 24 to dealers (7.5 to 8.5 cents each). The 12-oz. bottles have a dealer price of about \$1.25 a case (5.2 cents each). The big question is whether the consumer, in the long run, will be willing to pay extra for the convenience.

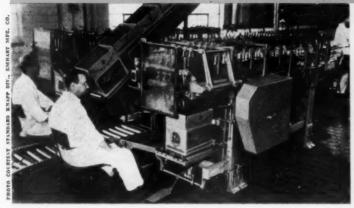
Another reason cited for success of C & C drinks in cans is Mr. Mack's cost-cutting distribution system, short circuiting the costly bottler-franchise system by opening strategically located plants and avoiding warehousing and local distributors.

In the final analysis, dealer acceptance may be the determining factor in any sizable shift to cans for beverages. Although the mark-up is lower, dealers like the time saved in not having to handle the returnable empties. One supermarket spokesman is quoted as saying that although the canned drinks bring a return of only 42 cents a case compared with \$1.02 on bottled goods, his company prefers the cans.

The swing to carriers

From the packaging standpoint, one of the great developments of recent years in both beer and beverage fields has been the now almost universally used multiple-package carrier. The carry-home carton not only increases

New machines increase production, cut costs



FOUR-LANE CASE PACKERS at Miller Brewing Co. Cases may be handled by an operator or by semi-automatic case feeders.



CARTON OPENERS have become an essential to the bottling industry. This portable unit, shown setting up "Coke" six-bottle carriers, operates at 70 cartons per minute.



the unit of sale, but meshes well with today's merchandising accent on mass display for self service. Rough guesses in the trade are that 60 to 70% of the one-way beer business is in carriers and in many markets the carriers are also used in connection with returnable beer bottles. In the soft-drink field the carrier is also practically indigenous to the business and, in addition to the long-established six-pack, there is a trend to the use of two-compartment cartons for large family-size bottles and also 12- and 24-unit carriers. The soft-drink field, with returnable bottles. tends more heavily toward stronger multiple-trip carriers.

Some bottlers report they are getting at least two trips on paperboard carriers and that deposits on carriers often help to increase bottle returns.

Carriers for the most part are made of paperboard or fibreboard in practically as many constructions as there are box makers. Some have handles; some simply have die-cut thumb holds, particularly those designed for six-can beer packs. Some are sturdy and some are not sturdy enough to carry the load and bottlers must make sure that they are purchasing constructions that will do the intended job.

Among the new multiple-trip sixand 12-unit carriers is an interesting embossed aluminum-sheet construction used for Coca-Cola, designed to facilitate fast, convenient handling by bottlers with a minimum of changeover adjustments. These are filled by AUTOMATIC UNCASER and washer-loader will handle up to 960 bottles per minute. This installation is at Duquesne Brewing Co. in Pittsburgh,



PHOTO COURTEST BCA. VICTOR DIV.

standard case-packing equipment.

Popularity of the multiple-unit carrier is impressively indicated by a study of the trend to the consumption of beer in the home, recently prepared by the American Can Co. Food stores, the report states, account for 59% of canned-beer purchases and 45% of bottled-beer purchases; 50% of the families buying canned beer for home use purchased it in units of six and 26% of those buying bottled beer bought it in six units or more.

Stepped-up design

There is evidence of the same interest in improved package appearance in the beer and beverage industry as is seen in every kind of packaging planned for mass markets. Quick brand identification is imperative in today's merchandising. Packaging must be capable of registering in sharp focus to be remembered when seen on TV or illustrated on the printed advertising page. Literally hundreds of brewers and bottlers have simplified or sharpened the appearance of their labels during the last few years. The use of carriers has also made it important that the trademark or an illustration of the package appear prominently on the carrier, particularly when individual packages are not visible inside the carrier.

More colors and more pictorial illus-

tration is also being used in both the beer and soft-drink packaging. Striking examples of full-color and pictorial appeal are the beautiful new rotogravure-printed fish-and-game carry cartons for beer introduced by the Goebel Brewing Co.3 These are significant of the use of the package for eye-compelling mass display, rather than dependence on banners, cards and other extra display devices in to-day's crowded stores.

Seasonal design approaches are another new idea gaining favor and in one instance a brewer has gone so far as to formulate and package his beer "especially for women," with an illustration of an orchid on the can packages.

Notable seasonal packaging is the Meister Brau Fiesta Pack of the Peter Hand Brewing Co., Chicago. Originated in 1952, the idea was extended this year to a series of winter carnival designs that feature on the beautifully lithographed cans Christmas trees, penguins, snowmen, winter sports, snowflakes, reindeer, etc. This seasonal lift, according to the company, provides a colorful advertising theme and a stimulating sales promoter for the normally slack winter season.

The Fiesta cans include a series with different transparent color backgrounds, while the natural silver color of the metal is left unprinted for the outlines of the figures in the designs. This makes for finished containers with

the brilliance of Christmas-tree ornaments. In any pack of six or 12 cans, the law of averages assures a good assortment of colors and designs, for all the containers are thoroughly scrambled as they come off the lines. The Fiesta cans are packed in gay multicolored carriers calling attention to the design feature.

Another successful seasonal promotion is the colorful Holiday packaging for Rainier Beer on the West Coast. Following up its successful Jubilee cans, this company promoted a series designed with traditional Thanksgiving and Christmas themes in a variety of appealing colors.

Still others have come up with seasonal packaging ideas. Canada Dry claimed a first in soft-drink merchandising with a special holiday six-bottle carrier depicting a cheery snow scene showing Mother, Dad and the kids—drinking Canada Dry gingerale, of course. A colorful, quality carrier was instrumental in Canada Dry's highly successful promotion of its Ouinac gin-and-tonic mixer in 1952.

In the Philadelphia area, Esslinger's are winning sales with what the company calls its "Facts for Fun" cans in a "Party Quiz Pack"—a series on which are printed a collection of facts that may be used as a party quiz game, making each can a conversation piece.

Greater mechanization

With a view to keeping packaging costs to a minimum, brewers and bottlers have been steadily moving to greater mechanization and higher speeds. One hears a great deal about "push-button" plants.

Can lines have progressed from speeds of 150 cans per minute when the first ones were put into operation in the '30s to the newest light-spindle beer-can-closing machine capable of speeds that reach more than 600 cans per minute.

One of these installations has been in successful commercial use for more than a year. Present plans call for a number of high-speed installations in 1954. Today line speeds above 400 are not unusual and there are isolated lines operating at nearly 500 cans per minute.

Glass lines are running at speeds only slightly less than can lines—up to 350 per minute—synchronized to modern washing equipment that can keep up with the high-speed bottling equipment.

There has been widely increased use of automatic casers and uncasers. New automatic palletizers are cutting the cost of handling operations and furthering a trend which is relatively new in these industries.

To meet the demand for canned beer, the brewing industry has been combining can inserters with compression units in speeding the output of six-pack cartons. The speed of this type of equipment is reported to have increased from an average of 320 cans to 500 cans per minute. Another machine is reported to unstack loaded pallets of empty cans and single file the cans for filling at speeds of 1,200 cases per hour.

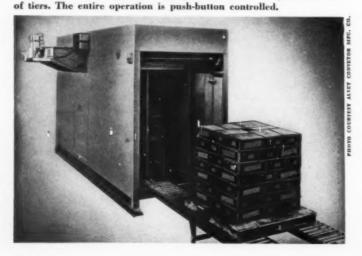
New machines form multiple-pack cartons around cans either automatically or semi-automatically. This equipment is used in more than 90 breweries and is available on a lease basis via licensed suppliers of the cartons. The equipment handles cone or flat-top cans in cartons with or without handles.

There is considerable interest in a radically simple type of can carrier consisting of a band of polyethylene film formed around six cans which, with a wire handle locked to the cans themselves, holds the pack by tension. An automatic machine for applying this type of carrier is now being tried out on the West Coast.

There are new bottle unscramblers that turn the bottles over so that the bottoms of the bottles are fed into washer carriers instead of the necks. A new case cleaner and a new type of (This article continued on page 196)

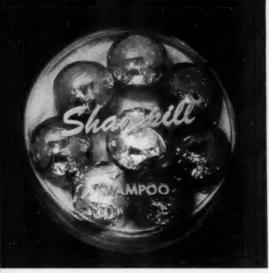
³ See "Fine Art for Beer," Modern Packaging, Nov., 1953, p. 100.
⁴ See "Beer Packs for Ladies Only," Modern Packaging, Nov., 1953, p. 131.

AUTOMATIC PALLETIZERS receive the cases and arrange them on a



pallet according to a predetermined pattern, with the required number





TRIAL CONVINCER, a 15-cent carded pack for one treatment of shampoo and hair conditioner in dry pill form, was introduced by counter cards in 600 drug stores in the New York metropolitan area, building sales for the acetate package containing eight "pills" wrapped in multicolored aluminum foil like bonbons.

Pill shampoo

With a new product made in a revolutionary new form, Combined Chemicals aimed for a curiosity-arousing package

A quick look at a package of Shampills—a rigid acetate box filled with eight spheres wrapped in foil—might give the impression that the product was a de luxe variety of candy instead of the detergent type of shampoo that it is.

The unorthodox package for this unusual new product was conceived by the manufacturer, Combined Chemicals Corp., New York. It was realized that consumers are accustomed to buying their shampoos as a liquid in bottles. Some dramatic new way was sought after for presenting a radically different type of shampoo—a detergent in dehydrated cake form.

Complicating the situation was the fact that the complete shampoo treatment consists of one cake for the actual cleansing and another cake described as a "hair conditioner." Furthermore, any system adopted would have to consider that produc-

tion, at least in the beginning, would be small in volume and packaging would be mostly semi-automatic.

Michael Corwin, president of the organization, created the desired dramatic appeal by wrapping the complete hair treatment, a gold-colored half sphere (the shampoo) and a white half sphere (the conditioner) in colored foil. Different colors are used for each of eight Shampills placed on a bed of cotton in a circular, rigid acetate box.

So that there will be no doubt about the nature of the contents, the words "Shampill Shampoo" are printed in blue on the transparent acetate box lid, making a pleasing contrast against the colored foil. Under the cotton bed an instruction folder tells users to wet the hair thoroughly, rub the gold cake into the hair until it dissolves, rinse and then repeat the process with the white conditioner cake.

So unusually attractive is the package that it is now being suggested by the company as suitable for gift giving.

The original idea was to establish distribution in 600 drug stores in the metropolitan New York area with a unit package, i.e., one foil-wrapped sphere mounted in a die-cut instruction folder and overwrapped with cellophane. The unit pack was mounted on a pink, black and white display card carrying the message: "Trial convincer . . . Shampill Shampoo . . . a brand new idea scalp conditioner, hair beautifier . . . dandruff disappears like magic . . . the best shampoo you ever used or money refunded."

Just as the company expected, shoppers, attracted by this new and unusual form of shampoo and the chance to try it by investing only 15 cents, bought up thousands of unit packs. After trying the shampoo once, a healthy percentage returned to the stores for the box of eight Shampills. It was also possible, of course, for the customers to buy additional supplies of unit packs.

The unit-pack sampling promotion has enabled the company to gain a foothold in the fiercely competitive hair-treatment market.

CREDITS: Acetate boxes, J. E. Sales Co., 132 Spring St., New York. Foil, H. D. Catty Corp., 160 Varick St., New York 13.

Design

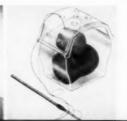


Plus appeal for typewriter ribbons

Two Remington Rand typewriter ribbons are sold as a unit in this new injection-molded transparent polystyrene plastic container that offers unlimited re-use possibilities for office and home. The attractively shaped container, re-usable either as a closed or an open box, has a snap-on cover with five holes in the top. It can serve as a catch-all for pins, clips, rubber bands, etc., as a flower pot or as a vase. Several containers may be joined with pressure-sensitive tape. As a dispenser, thread or knitting yarns can be fed out

through holes in the lid. A printed insert carries trade and product identity on one side and re-use suggestions and illustrations on the reverse side.

CREDIT: Box, Atlantic Plastics, Inc., Stamford, Conn.





Easeled plastic display package

An individual plastic holder that can be converted into a display stand creates a handsome presentation package for the Benrus Watch Bracelet, product of the Benrus Watch Co., Inc.

The holder for the watch band is molded of polystyrene plastic, with the Benrus name and sell copy in raised colored lettering at the top and bottom. A velvet pad to which the bracelet is attached fits into top and bottom openings of the holder. A metal easel affixed to the reverse side of the holder permits the package to be displayed upright in jewelers' windows and counters. The simply designed metal piece hooks into a tiny circular hole in the plastic, then is slipped through the bottom opening in the holder and folded flat against the back. To stand the package up for display, the metal piece is simply bent down to create the easel stand.

CREDITS: Plastic holder, Massachusetts Plastics Corp., Ludlow, Mass. Carton, Franklyn Folding Box Co., Inc., Maspeth, N. Y.

Histories

Decorative moth crystals

The Koppers Co.'s Snowflake Vaporizer, a new snow-flake-shaped moth killer, had to be packaged (1) with decorative feminine appeal, (2) at a minimum cost and (3) in a manner to overcome excessive breakage in shipment. The designer cleverly met all three requirements with this package, constructed of two pieces of die-cut and scored paperboard glued together with a lace covering. The front piece of cardboard is designed and cut to hold the Snowflake rigid at all times and to assure a center pressure point that reduces breakage. Breather holes are cut in back of the package.

Total cost is only 3 cents and shipping tests proved the package held breakage to a minimum. Even if the Snowflake is broken, it does not lose its over-all shape since each corner is securely held in position.

CREDITS: Design, Nowland & Schladermundt, New York. Container, A-1 Mounting & Finishing Co., New York.



Kodak's new carrying handle

Success of the Eastman Kodak Co. in merchandising its packaged camera and accessories sets prompted the company to introduce this new box that serves as a convenient carrying case, complete with plastic handle, for its Brownie Hawkeye Flash Outfit. Both box and carrying handle required careful engineering for proper fit. Polyethylene, selected as the plastic material for the handle, is extruded to 0.050 thickness, knurled and die cut to specifications. Base of the paperboard box is slotted to fit the handle and the diecut inner platform is especially engineered where it meets the handle. The cover is die cut to lock the handle in place when the box is closed. The handle fits flat against the box, yet the consumer can lift it out easily for carrying.

Traditional Kodak yellow is used for the box; the polyethylene handle is black.

CREDIT: Polyethylene handle, Anchor Plastics Co., Inc., Long Island City, N. Y.





SKY GUEST PAC is attractively arranged in box which is designed with colorful airplane motif and carries TWA trademark.

Guest

HOTEL PACKS may be ordered with individualized box coverings. Blank space under the logotype of "Mr. and Mrs." pack is left for the hotel manager to print or stamp in gold the guests' names.



Every packager knows that good sampling is one of the best forms of promotion. If a prospect can be induced to try a sample package of a product, he is much more likely to buy.

But sampling can be a costly and wasteful procedure if the samples do not get into the hands of genuine prospects. The street-corner and house-to-house give-aways of yesterday appear to be yielding to newer techniques that assure a closer control over the distribution of samples in the same manner that advertising space and time on the air today are directed to more specific reader and audience groups.

Among the newer techniques especially popular with manufacturers of toiletries and baby products is a procedure of presenting a package containing a dozen or so samples to patients in hospitals, guests in hotels, travelers on airlines, students in colleges, readers of magazines, etc. The package represents a cooperative effort in that it contains an assortment of non-competitive branded items of sev-

eral manufacturers, is paid for partly by the manufacturers whose products are included and is sold to the hotels or hospitals for a small sum, or is given away free to hospitals for new mothers, depending on the procedure of the servicing firm, for use as a good-will gift to guests or patients.

So rapidly is this trend growing that, within the last few years, at least 25 firms have attempted to go into the business of offering to handle such sampling programs for the makers of soaps, toiletries, over-the-counter drugs, infants' items and a number of baby food items, although principally non-food items which are not covered by such organizations as Welcome Wagon and others.

Only two of these firms, however, have mastered the know-how of handling the sampling in a way that has won the confidence of the manufacturers for which they are doing the sampling.

A pioneer in this activity is the six-year-old Gift Pax organization, New York, whose success has been built on its special technique in distributing free through hospitals gift kits of samples to new mothers-reportedly at the rate of 2,000,000 a year in over 3,000 hospitals, representing about 85% of the hospital births in each major city. Gift Pax, whose original idea grew out of the sampling to new mothers of a washing preparation for diapers, has just recently added "Travel Pax" for the distribution of samples to "Mr. and Mrs. Traveling America" through leading hotels, airlines and resorts, and reports it has already booked orders for more than one million of these units to be delivered through June, 1954. Gift Pax also has facilities for distributing kits of samples to travel agents, college students and a G.I. Pax in post exchanges. In its six years of operation it claims to have dis-

tributed more than 50,000,000 individual samples.

One of the largest in the business is the Guest Pac Corp., New York, which reports that in three years it has distributed more than 20,000,000 individual samples through its Guest Pacs and Campus Pacs—attractive candy-box-size packages each containing up to a dozen or more noncompetitive items. During the ensuing year, this company expects to distribute one million samples of brandname cosmetic and toiletry products to women patients in private hospitals through what it calls Beautility Kits.

Last year Guest Pac began extending its coverage to airlines with its Sky Guest Pac and is also cooperating with the American Automobile Assn. in the distribution of kits of samples to member motorists leaving on an extended trip. Another of this firm's activities was the packaging of

sampling

New-user gains of 40 to 290% are reported for brands distributed in sampler kits by hotels, hospitals, airlines



Beech-Nut CEREAL FOOD FOR STABLES

NEW MOTHERS have time on their hands to study Gift Pax presented to them by hospital. Two million a year of these kits are distributed in some 3,000 hospitals. Polyethylene bags hold assortment of various-sized sample packages, can be easily random packed without necessity of fitting dividers and partitions.



TRAVEL PACKAGE designed by Gift Pax is a folding carton made to look like a miniature traveling bag complete with paperboard handles. It can be random packed with a variety of sample products.

the 1952 and 1953 beauty packages of samples which were featured by Harper's Bazaar magazine.

Spot Promotions, another New York firm, is reported to be entering the field shortly with a variation of the hotel sampling idea, which it will call "Howdy Pak."

Among the advantages to manufacturers cited for these new techniques in sampling are:

1. Captive audiences. The sampler kits are presented in hotels upon a guest's arrival or shortly after he gets to his room and is perhaps fumbling for a razor blade or needs a tube of tooth paste or a mouth wash he has forgotten to purchase. In hospitals the woman patient or new mother has plenty of time on her hands to study the samples, read the labels, talk over the products with other patients or with her husband, who also sees what the hospital has given to her. Airline passengers likewise have time to examine the samples and may appreciate finding items they may have forgotten in the hurry of packing.

Non-competitive. The kits represent a cooperative brand activity, but a non-competitive method of sampling, since no competing products are ever included in the same kit.

3. Assured distribution. Since in most cases the sampler packages are purchased by the hotels at prices from 19½ cents to 24½ cents, or sold to college students, G.I.s, etc., for 20 to

30 cents, the manufacturer is assured against indiscriminate distribution and pilferage. What must be paid for is not so likely to be made off with by hotel personnel. The free gift kits to new mothers in hospitals are controlled by special detail representatives.

4. Low cost. For comparatively low sampling expenditure, the manufacturer is assured of getting his samples directly into the hands of a selective audience.

Measurable returns. Because the sampling is controlled within definite channels, the manufacturer has an opportunity to make follow-up checks to determine the number of new customers won as the result of the sampling program.

 Quality brands are assured of sample distribution through recognized prestige outlets such as leading hotels, airlines and hospitals.

Among big-name users of these methods of sampling are such companies as Colgate-Palmolive Co., Lever Bros., Procter & Gamble, Johnson & Johnson, Beech-Nut, H. J. Heinz, Bristol-Myers, Davol Rubber, Stoppette, Shulton, E. R. Squibb, Mc-Kesson & Robbins, Sharp & Dohme, Northam Warren, Lentheric, Pond's, Kleenex, Bromo-Seltzer, Sucrets and many others.

Independent follow-up checks by a number of these companies have indicated the effectiveness of these new methods of sampling by showing increases in new users from 40% to as high as 290% among those who received the samples, with the average conversion rate on many items at around 50%.

Follow-up checks by manufacturers are possible because of the methods used to obtain names of the recipients of the sampler kits.

Guest Pac encloses inserts in its hotel packs inviting the recipient to write in for another free Guest Pac if he liked the one he has. In this way manufacturers may be supplied with a valuable follow-up list.

Guest Pac's Campus Pacs are sold through student representatives under the supervision of economics-department faculties in the various col-

BOOK-TYPE BOX is used for sampling on college campuses. Assortment is sold to students for 25 cents, but is actually worth several times that amount. Similar put-up is arranged for girls. Estimates are that 500,000 students will be sampled on 20 campuses this year.



leges. When the Campus Pac, valued at several times its selling price of 25 cents, is purchased the student is asked to sign his name and address, thereby making a good follow-up readily available.

Gift Pax credits the success of its sampling to new mothers to the particular methods it has worked out for follow-up. Every hospital Gift Pax contains a postcard inviting the young mother to write in for another free gift. The cards are coded so that returns identify each hospital and provide a list of the names and addresses of the recipients of the Gift Pax. Returns, Gift Pax reports, average 40%. Gift Pax employs 36 detail people to visit the hospitals monthly. Return cards are checked against the hospital's birth rates. If any go below average, Gift Pax says, the detail person can determine quickly if the kits, which are given to the hospital free, are not being distributed into the right channels. The detail person can also

Similar postcards with an additional gift offer are included in Gift Pax travel packages, college packs and G.I. packs.

report reactions to the items included,

recommend changes or improvements.

Much attention, of course, is paid to the packaging of the samples, even though cost obviously must be kept down. Only products of proved quality and good reputation are accepted. The effectiveness of the entire cooperative effort would be lost if any unreliable or injurious product were included.

The samples are regarded as prestige gifts by the managements who give them away-as something extra in the way of a service that helps to build good will and new business. Mrs. Jones, for instance, may say only half jokingly that she wants to have her baby in the hospital where Mrs. Smith got that lovely gift kit. The idea has a very strong indirect influence on her preference, hospital managers believe. Likewise, the guest boxes have the power of suggestion in selecting a hotel. Prospective guests get to know by word of mouth the names of the hotels where they give away the samples. For this reason, the distributor of the samples demands a package attractively put up in keeping with the hotel's or the hospital's reputation and containing products of known brands and quality.

It is important also that products be selected for specific sampling operations. Remedies such as seltzers, cough drops or aspirin, for example, are not usually included in the hospital packs, yet such products of reputable brand are often put in the hotel packs.

Usually the packs contain about 10 or 12 different items. If sample-sized packages are available, these may be supplied by the manufacturer. If not, the sampling organizations, either through their own facilities or arrangements with contract packagers, are equipped to package many products in small-sized containers, including liquid and powder filling, often at reportedly lower cost than manufacturers could do it themselves. In some cases, the regular sales-sized package is used for the sampling operation.

The Guest Pac Corp. packages practically all the samples it distributes in set-up boxes of candy-box size. These have been discovered to be most convenient for handling. The hotel packs are gotten out in assortments of products for men, for

women or in what is called a "Mr. and Mrs." pack consisting of samples useful to both sexes.

The Campus Pac, in a book-type box, is made in two distinguishing colors, one for assortments of products to appeal to young women; the other, to young men. Assortments in all of the packs change with the variations in the sampling contracts. A change of products, of course, necessitates a re-arrangement of the interior dividers and the repositioning of the items, but Guest Pac says that it has not been difficult to adapt the same size of box to all purposes.

Guest Pac's Mr. and Mrs. box may be personalized by use of a blank space on the box face where the hotel management may write in or gold stamp the names of the guests. The packages are usually presented to the hotel guests by a maid or bell hop shortly after arrival. Distribution is supervised by the linen room, which accounts for each package that (This article continued on page 208)

CANDY-BOX SHAPES are favored by Guest Pac Corp. Interior dividers are skillfully arranged to accommodate any assortment as illustrated by Hospital Beautility Kit and roadmap-covered box for American Automobile Assn. courtesy box.





PACKAGING







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Quality Fruit Wines Corp.'s Berrycup bottled wines are merchandised with a corrugated shipping case that quickly converts into a counter display unit. Case-cutting instructions are illustrated on a separate sheet in each case. In selected retail outlets, the company reports, tests showed the display doubled sales. Bottles, Anchor Hocking Glass Corp., Lancaster, Ohio.

Handy opening of this colorfully printed cellophane wrapper for Groff Paper Co.'s Nifti-Nap napkins suggests further new uses for the versatile cellophane tear tape. Tape is applied down the center of the package so that any number of napkins may be removed without destroying the wrap. Wrap and "Zip-Tape," The Dobeckmun Co., Cleveland, Ohio.

Rings Men, Ltd., Luxury Traveler kit—a simulated alligator leather case decorated in four colors—holds three polyethylene bottles of men's toiletries: after-shave lotion, cream hair dress and after-shave powder. The

mariner's compass is flanked by sketches of Paris, Monte Carlo, Mexico City, London, Bermuda and Rio de Janeiro.

A Olive-drab wrappers which for so long have identified Lambert Pharmacal's Listerine are being replaced in the Canadian market by new blue and white cartons. Increased display value of the new package, Lambert Canada reports, has resulted in improved consumer sales. Carton, Gair Co., Canada, Ltd., Toronto.

A "Gay Nineties" bathroom with all the quaint accessories of that era are portrayed on this new Bathroom Privileges men's toiletries set by Alfred Dunhill. The container holds after-shave lotion and men's cologne, both in Dunhill's spiral-molded polyethylene plastic bottles. Box, Chaspec Mfg. Co., Greenwich, Conn.

6 Park & Tilford Private Stock, now appearing in a private-mold, pint-sized amber-glass container called "Gentleman's Flask," further indicates the trend to deco-











rative packaging of luxury liquors in popular-priced units (see "Decanter Boom," MODERN PACKAGING, Dec., 1953, p. 100). Glass, Hazel-Atlas Glass Co., Wheeling, W. Va. Plastic jigger, Mundet Cork Corp., North Bergen, N. J. Foil label, C. H. Forsman Co., New York.

Bags for 5 and 10 lbs. of Dakota Chief Sales Co.'s potatoes are now made of printed polyethylene—the type of package that surveys indicate the housewife wants. The tough plastic bag is colorfully designed in red, white and blue with an illustration of an Indian in full headdress. Bags, Milprint, Inc., Milwaukee.

Lentheric's appeal to the bargain hunter is this "Two for the Money" combination deal—two polyethylene bottles of Sheer Beauty hand lotion for the price of onepackaged in a die-cut and scored open-end carton. Die cuts at the top hold the bottles securely at the neck; openings in the front reveal brand and product lettering on the bottles. Carton, Robertson Paper Box Co., Inc., Montville, Conn. Bottles, Plax Corp., West Hartford, Conn.

Printed cellophane with a laminated, heat-sealed, lacquer-coated glassine liner gives this bag for Rebel-Aid, a new concentrated drink powder by Thomas & Dunn, Inc., moisture protection, sales appeal and sufficient rigidity for display. Package designed and supplied by Packaging Products, Inc., Kansas City, Mo., using Olin cellophane and Rhinelander glassine.

An 18% increase in sales of the Broil-Quik Chef and An 18% increase in sales of the Color-Fryer resulted with the introduction of this colorfully designed corrugated container. Background is orange, with design and lettering in black and white. Design, Raymond Loewy Associates, New York. Container, Kraft Corrugated Containers, Inc., Bayonne, N. J.

This handy wall-dispenser container for Armstrong Cork Co.'s new Handi-Pack plastic vials is convenient for the prescription druggist. The tray slides out for transfer to a drawer if desired. Chart printed on the container shows the capsule capacity for each vial size. Container, Simplex Paper Box Corp., Lancaster, Pa.

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JANUARY 1954





Gerber's

Gerber's







From the day they are born, today's babies start influencing consumer buying habits in a manner that demands packages and mass-production techniques designed to their requirements.

A good example is the new fourin-one variety cereal pack, called "Gerber's Cereal Quads," first introduced in southeastern states and expected to be available to grocers all over the country shortly after the first of this year.

This new method of packaging

COLORFUL ARRAY is provided by four individual 1-oz. cartons, each with its identifyings colors: red for oatmeal, buff for rice, yellow for barley, blue for Mixed Cereal—overwrapped with printed cellophane. In background is a standard 8-oz. cereal package.



FOUR-IN-ONE packs of 1-oz, cartons of four cereals provide doctor-recommended variety in infants' diets without the necessity of having four large-sized cartons of cereals open all at the same time.

Quads

Young mothers' preference for

variety baby-cereal pack necessitates new

automatic techniques for collating and wrapping

baby cereals is an answer to the demand by young mothers for a variety package of baby cereals in small sizes. Gerber Products Co. became interested in the idea as the result of sampling miniature replicas* of its 8-oz. packages a few years ago.

The Quads package, the first of its kind in the baby-cereals field to be introduced as a nationally distributed sales package, consists of four colorful 1-oz. individual cartons—one each of the company's four cereals: rice, barley, oatmeal and Cereal Food (a mixed cereal)—wrapped in printed cellophane.

The new combination cereal package has necessitated a completely new high-speed production set-up in the company's Fremont, Mich., plant which has a number of interesting features that should be of particular interest to any company with similar problems of automatically collating and wrapping several different cartoned items as a single four-in-one unit.

Based on knowledge gleaned from thousands of young-mother letters, and from the company's own market tests, Gerber's expects that the Quads will quickly become one of the most popular items in the grocer's baby department. In the Quads package, mothers apparently are discovering the answer to the problem of providing doctor-recommended variety in infants' diets without the necessity of having four large-sized cartons open all at one time. Mothers taking their babies out for a day or a week-end also find the package convenient for packing in a handbag or overnight case.

The fact that the country's birth rate is estimated to go over the 4,000,000 mark in 1954—the highest in history—also indicated to Gerber's the need for having adequate production facilities to meet this growing demand.

While the Quads cartons are about twice the size of the original samplers,

all the advantages of the earlier variation and convenience remain, and the company had the mechanical experience of a former semi-automatic setup of the original miniatures as background knowledge for setting up full-scale automatic production for the new Ouads.

The Quads line is a part of Gerber's over-all cereal modernization program in which the cereal-packaging operation of the company has been completely revamped and improved with new equipment.

The Quads cartons are made with a siftproof inner liner of 26½-lb. vegetable parchment-kraft cereal-liner paper, triple folded for added protection before the boxes are closed and

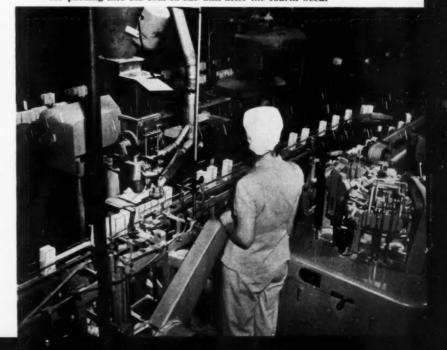
sealed. They are made on a double cartoning machine which takes the liner paper from rolls and the flat carton blanks to form them automatically into completely lined cartons, set up ready for filling.

The 1-oz. packages are filled volumetrically, two at a time. After partial filling, a vibrator is used on certain types of cereal as required. Following folding of the inner liner, the carton flaps are folded and the carton glue sealed automatically.

Only one type of cereal is packed at a time, worked out on weekly rotation—one week, barley; second week, rice; third week, oatmeal; fourth, the mixed cereal.

As a run of each variety of cereal

AUTOMATICALLY FORMED cartons with siftproof inner liner are filled volumetrically two at a time. One type of cereal is packed at a time, on a weekly rotation cycle, then stored until each of the four types is ready for packing into the four-in-one unit after the fourth week.



 See "Gerber's Miniatures," Modern Packaging, May, 1951, p. 90. packages is completed, cartons are placed 324 to sealed corrugated storage containers in a controlled storage room to await assembly at a later date. Since only one variety of cereal is run each week, four weeks' requirements of each must be stored for use on the collating and wrapping line.

After the fourth week, when sufficient inventory of the 1-oz. cartons of each type of cereal is on hand for wrapping the four-in-one packs, the storage cartons are transferred to a specially designed feeding and conveyor system for collating the four dif-

ferent types of cartons in preparation for the cellophane overwrap. The first two types of Quads packages are picked up by an operator and loaded into two magazines, from which they are picked up by a chain-type intake. As the two packages move along, they are joined by the third and fourth cartons, loaded similarly in two other magazines by a second operator. The four cartons are thus assembled as a horizontal unit when they enter the wrapping station, where the cellophane is wrapped around the units of four and sealed at speeds of about 100

per minute. Sealed packages are turned vertically on their sides by a tripping device as they pass to a belt conveyor for easy removal into shipping containers.

The company is meticulous about quality control and, to assure accurate fill, operators weigh two packages every 10 minutes. At regular intervals a quality-control technician picks two boxes for analytical check.

The wrapped packages are taken from the line and placed by hand 24 to a shipping case, which then passes through an automatic gluer and sealer.

All of the Quads packages are produced in the Cereal Building of the company's Fremont, Mich., plant because of the specialized equipment required for handling. They will continue to be packaged there until demand forces increased production in other locations.

The four-in-one wrapped Quads provide a colorful array on the grocery shelf. Each individual lithographed carton, of course, is similar in design and color to the company's regular 8-oz. packages, carrying the famous Gerber baby illustration and the same background colors to identify each cereal: red for oatmeal, buff for rice, yellow for barley and blue for the mixed cereal. The cellophane overwrap is printed with a positioned diagonal strip in red with white lettering outlined in black that reads on the face of the package, "Gerber's Cereal 'Quads' for babies," and on the sides, respectively, "The variety baby needs and enjoys" and "4 choices for baby to start on."

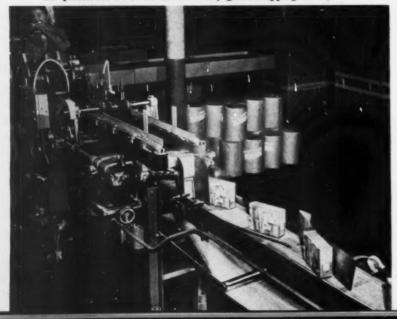
The former ½-oz. sampling cartons have been completely discontinued. The company is now using automatically produced envelopes for sampling and estimates that it reaches nearly a third of the nation's new babies through direct mail to new mothers, who quickly become prospects for the Quads variety pack.

CREDITS: Cartons, Michigan Carton Co., 79 E. Fountain St., Battle Creek, Mich. Liner paper, Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich. Printed Cellophane wraps, The Dobeckmun Co., 3301 Monroe Ave., Cleveland 13, Ohio. Cartoning and filling machines, Pneumatic scale Corp., Ltd., 65 Newport Ave., Quincy 71, Mass. Wrapping machine (Model 46), Battle Creek Bread Wrapping Machine Co., Battle Creek, Mich. Shipping-carton gluing and sealing unit, Standard-Knapp Div. of Emhart Mfg. Co., Portland, Conn.



IN PAIRS, two types of cereal packages are placed in magazine that feeds to conveyor line where they are joined by other pair similarly fed to conveyor. Four assembled cartons then enter wrapping machine as a unit.

COMPLETED PACKAGES, wrapped and sealed at rate of 100 per minute, are turned on their sides as they pass onto belt conveyor prior to removal for placement 24 to an automatically glued shipping carton.



One carton for two markets

Restyled Behr-Manning packages do the job for both industrial users and self-service hardware stores

M ore than one manufacturer today, especially in the hardware field, is facing up to the task of moving and selling a packaged product through two or more channels of distribution. In the hardware field a manufacturer's product may be headed for both industrial and retail accounts. And often a package adequate for the industrial field may fall below the demands of hardware stores, which have been steadily adopting self service.

The point of a carton redesign program by the Norton-Pike Div. of Behr-Manning Corp., Troy, N.Y., was to serve two masters equally well—to produce a package with the necessary protection and identification of its sharpening stones as required by industrial distributors and end users and one that would, at the same time, better identify the company and win greater attention at point of purchase in hardware stores.

As it turned out, the company has not only achieved its design objectives, but has saved money on packaging in the bargain.

The basic package with an obsolescent design was a telescoping setup box with a two-color paste-on top label and a paste-on end label. Formerly it was felt necessary to describe the type of sharpening stone both on the top label and again, along with other variable information, on the end label. Another problem concerned placing a glassine label, explaining that the product was oil saturated, on the inside surface of the top lid. Since most of the stones are dipped in oil, the inside surface of the top lid and bottom shell were glassine coated.

Questions to be answered were: what design improvements could be made and what, if any, changes could be made in labeling and carton construction?

First attention was given to the surface treatment of the cartons. Selected was a color scheme of blue and yellow to tie in with other packages in the company's family of products and to establish clear-cut association with the Behr-Manning organization. Strong colors and large block letters now make the packages readily recognizable, even at some distance—obviously a desirable feature in the retail store.

A slight reduction was made in the number of different cartons needed for the various types of sharpening stones by printing a universal description on the cartons—in place of the variable top label. It now carries the message, "Another Norton Product," and identification of the product as a "Sharpening Stone."

Making the change to a printed tight wrap presented the opportunity to simplify the presentation of two trademarks, both formerly crowded together on the top label. Now a rectangular shape for the "Norton" trademark is printed on top of the lid and the Behr-Manning trademark, a triangular shape with a bear in the center, is reproduced on the side of

the lid. Separating the elements in this way does far greater justice to the trademarks, the company believes.

Variable information is now restricted to the end label, previously the wrap-around type, but now reduced in size so that it covers only the carton end. More readable than before, it supplies all the information that the distributor or retailer wants to know.

In switching to the new printed cartons, Behr-Manning decided to drop the glassine label (referring to the oil-saturated stone) on the inside surface of the top lid and replace it with a printed message. At the same time, the company figured that, even though the product was oil soaked, perhaps only the inside surface of the bottom shell need be coated with glassine. This proved to be the case, scoring another saving for the company.

CREDITS: Printed tight wraps, Commonwealth Press, Worcester, Mass. Set-up boxes, Casco Paper Box Co., 68 Cross St., Portland 3, Me. Folding boxes, Boxmakers, Inc., West Springfield, Mass.

DOUBLE DUTY at lower cost is achieved by the new package. The old package was adequate for industrial accounts, but had no retail-store appeal. The new one, with its single end label, serves both.





Single-unit baby department

A life-like photographic reproduction of a charming baby, completely irresistible to mothers, dominates this newest point-of-purchase unit for Johnson & Johnson's baby products.

The clean, uncluttered design of the display stand, with sell copy kept to a minimum, conveys an ethical and sanitary appearance. Prominent display given to Johnson's products by this floor merchandiser encourages the shopper to buy. Any variety of the company's baby products or any single J & J product may be jumble displayed in the bin-type stand. Easily set up by the retailer in a few minutes, the unit is large enough to do a complete merchandising job, yet it occupies a minimum of space. A riser display panel presents the sales story in a few words: "America's Favorite Baby Needs." Two large circular spots are provided on the riser for writing in price. Printed in red and blue on white corrugated board, the unit has a black "kick band" around the bottom to absorb scuff marks and increase the life of the unit.

CREDIT: "Selmor" display stand, The Hinde & Dauch Paper Co., Sandusky, Ohio.

A giant-sized plaserve popular-pri Modern Packacias a point-of-sale \$3 million prograiner. This jumb in. wide and 5 in in every detail bottle is blow mo each half including The two plastic gether and the base, which given Clear plastic is us sprayed to resemble.

Decanter giant

A giant-sized plastic replica of the new Schenley Reserve popular-priced decanter (see "Decanter Boom," Modern Packaging, Dec., 1953, p. 100) is being used as a point-of-sale display to tie-in with the company's \$3 million program for promotion of this new container. This jumbo display, measuring 26 in. high, 14% in. wide and 5 in. deep, is an authentic reproduction in every detail of the decanter bottle. The display bottle is blow molded of butyrate plastic in two pieces, each half including the bottle as well as the closure. The two plastic pieces are electronically sealed together and the completed unit cemented to a wood base, which gives the display weight and rigidity. Clear plastic is used and the body of the bottle is color sprayed to resemble a liquor-filled bottle. The closure section remains clear. The label and seal around the closure are of paper. Weight of the entire unit is only 1½ lbs.

CREDITS: Display, Majestic Creations, Inc., Woodside, N. Y., using Tennessee-Eastman butyrate.

Lipsticks in vacuum-formed dome

Increasing acceptance of vacuum-formed plastic for displays is indicated by a new self-service counter unit for Revlon Products Corp.'s Jeweled Lipsticks. Here the vacuum-formed dome, molded of polystyrene, is utilized as a base to hold individual sets of three lipsticks wrapped in velour pouches. Twelve of the pouches are nested into position in declivities in the vacuum-formed dome, which is held in position by the circular paperboard base of the display. The consumer can easily remove the pouches from the display for inspection of the lipsticks.

The riser piece, which creates the effect of an inviting showcase for the unit, displays a four-color-process reproduction of the three jeweled lipsticks, mounted to paperboard and die cut. Sales copy is in reverse against a dark background. An oval patch at the upper right-hand corner calls attention to a special limited-time offer of a \$3 value for \$1.50. The circular paperboard base tells the shopper that the three assorted lipsticks in the pouches are available for light, medium and dark complexions.

CREDIT: Display, Merit Displays, New York.



GALLERY

Gold foil to the fore

Impulse gift purchases were promoted during the holiday season by P. Lorillard Co. in this self-service counter merchandiser holding 20 luxurious gold-colored aluminum foil cartons of Old Gold cigarettes—10 regular-sized cartons and 10 king-sized cartons. Back piece of the display reproduces Santa Claus in full color carrying a sack full of Old Gold cartons with an appealing cocker spaniel in their midst. Copy above, in traditional red and green, advises shoppers "For a Very Merry Treat Instead of a Treatment . . . give Old Gold." Circular die-cut price tabs on each side provide space for dealer marking of price for regular- and king-sized cartons.

The foil surface of the cartons—not sleeves—is embossed to give a hammered-gold finish, with embossed lettering in red and the grosgrain ribbon and sprig effect in green. No additional Christmas wrapping was needed for presentation. The entire display, only five cartons wide and one carton deep, takes up a minimum of counter space.



CRAZY STACKING doesn't faze jars lightly coated top and bottom with a colorless liquid that is just tacky enough to prevent jars from slipping.



TACKY-STACKY

That's Tea Garden's name for a device that gives a non-slip coating to tops and bottoms of preserve jars

device for coating jar tops and A bottoms with a colorless, tacky material to prevent jars from slipping when stacked on shelves has been in operation at the Tea Garden Products Co. plant at San Leandro, Calif., for the last year. The first such device to be placed in a plant line, it was developed as the result of some three years of experimentation in cooperation with a glass supplier. It has been named, descriptively, the "Tacky-Stacky." Caps and bottoms of jars are coated when the jars pass over one roller and under another simultaneously, under slight compression.

Tea Garden's "Tacky-Stacky" is incorporated in the high-speed preserve-filling line installed in its new San Leandro plant last year. Geared to a top capacity of 30 thousand 20-oz. jars or 43 thousand 12-oz. jars per 8-hr. shift, it is one of the most efficient glass-filling lines in operation on the Pacific Coast.

The plant is arranged so that all product cooking is effected on a balcony over the rear of the main plant area. Preserves for the high-speed line are prepared here and gravity-fed over an opaque-glass inspection plate, illuminated from below, into the hopper of an eight-head automatic filler equipped with a no-jar, no-fill control.

Empty jars are automatically conveyed to the filler from a jar cleaner employing both air blast and vacuum to remove waste matter. Filled jars are conveyed in a straight line through a capper and into a 30-ft. walkingbeam spray washer and cooler. Emerging onto another flat-link conveyor belt, jars are labeled and then pass onto the single-link chain conveyor which is a part of the Tacky Stacky unit and is coordinated with the rest of the line. It carries the jars to the coating rollers. Then the rollers themselves carry them forward

to another single-link chain which conveys the jars on to be packed into

The Tacky-Stacky roliers have a steel core, a layer of soft rubber and an outer layer of hard rubber. They are chain driven by an electric-powered motor which is a part of the unit itself and which also furnishes power for the chain conveyors. The bottom roller revolves in a well of the clear coating liquid, the well being fed from a reservoir composed of a gallon jug of the material held in an inverted position. The top roller receives its supply of coating material by having it offset from a contiguous steel roller which revolves in a similar well.

Although the adhesive and slightly corrosive nature of the liquid makes it difficult to remove from outer portions of the Tacky-Stacky unit, it does not come into contact with any portion of the preserves jar except



OVER-ALL VIEW of the Tea Garden line, showing jars as they emerge from washer-cooler at far right and progress through the labeler and Tacky-Stacky (center) to the casing station located at the left.

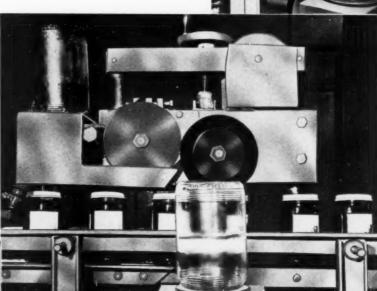
the bottom surface and the top of the cap, where it is invisible and its tackiness so slight as to be not discernible to the consumer, according to Tea Garden. Its value lies in its aid to the retailer.

Because jars will not slip off each other, they are easy to stack and to keep stacked.

Retail dealers report that their breakage and stacking problems have been greatly reduced and that Tacky-Stacky is a helpful aid to store personnel.

CREDITS: Tacky-Stacky unit developed in cooperation with San Francisco Packaging & Research Division of Owens-Illinois Glass Co. Type 19 standard eightline automatic filler and jar cleaner, Hope Machinery Co., 9400 State Rd., Philadelphia 14, Pa. Vapor-Vacuum capper, White Cap Co., 1812 N. Central Ave., Chicago, Camco washer and cooler, Canning Machinery Co., 4525 S.W. Lee St., Portland 19, Ore. World Bee-Line labeler, Economic Machinery Co., Div. Geo. J. Meyer Mfg. Co., 48 Fremont St., Worcester 3, Mass. Jars, key openers and cases, Owens-Illinois Glass Co., Toledo 1, Ohio

CLOSE-UP of the Tacky-Stacky unit showing jars passing between top and bottom rollers under light compression. The clear-glass gallon jar in foreground is a reservoir for liquid feeding the bottom roller of the unit.

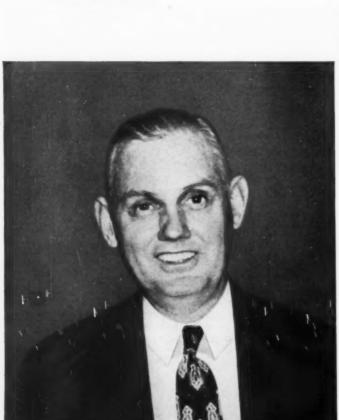


TACKY-STACKY principle is simple. Reservoir, upper left, feeds special fluid into well in which upper left roller revolves. This roller offsets fluid onto rubber roller at right, which coats jar caps passing beneath. At same time, lower roller (hidden by fluid jar in foreground) picks up fluid from bottom well and coats bottom of jars. Wheel at top adjusts unit to jar sizes. Tea Garden runs both 12- and 20-oz, jars.



CONVENIENCE FEATURE of Tea Garden packaging is key for easy lifting of caps, glued by hand to one or two jars in each case. "The visible salespackage is doing a selling job for both retailer and packer"

says EUGENE M. STEWART, Store Manager Hills Super Market Bessemer, Alabama





"With the growth in selfservice marketing we see a parallel growth in visual packaging. In every department the visual salespackage is doing a selling job for both retailer and packer."



Because food products in self-service markets are on their own—no words, no pictures, no labels spark impulse sales as effectively as seeing the product itself.



Each year more and more products are packed in glass. There are good reasons for this: glass shows off quality and attracts sales because it's a convenient salespackage to use and to store.

Today's self-service selling demands a self-selling package—GLASS!

With the growth of self-service, food products are on their own. They no longer have the sales help of personal selling by clerks. So today your package is a more important sales tool than ever before. And for many products the answer is *glass*.

There are good reasons why: glass containers attract attention; they invite impulse sales by showing off the quality of what's inside; they show how much is left; they are sanitary—keep contents fresh and clean; easy to serve from, store and re-use.

DURAGLAS CONTAINERS
AN (1) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO



IMPROVED RECOGNITION is forcibly illustrated by this contrast between the old Lipton Soup Mix cartons with the new. On shelf or TV the consumer can't miss bold lettering and bull's eye with product designation.

Sharper Lipton

Tea and soup-mix packages get the uplift treatment for stronger shelf identity and TV pre-sell recognition



SAME DESIGN is earried over to individual laminated foil packets inside carton. Simplicity of design has strong memory value. Recipe suggestions and directions for use are printed on back of packets.

I mplanting in the mind of the prospective customer a visual image of the package that will carry over from the TV commercial or the printed advertising page to the point of sale is an essential concern of every large advertiser of packaged products today.

But fewer manufacturers of packaged goods are being misguided into thinking that the demands for television are more severe than the sharpness of pattern, strength of brand and product identification required for today's selling on the store shelf in the absence of clerk service.

What has been true since the beginning of television advertising is true today: The package that does a job on the dealer shelf will usually do an equally good job on television—with the possible exception of color values, which must be doctored up for TV anyway, the same as actors must use TV make-up. The overriding consideration is and always will be appearance at the point of sale.

A good example of the kind of sharpening up that can be done is indicated by the restyling program just completed by Thomas J. Lipton, Inc., for packages of Lipton Tea and Lipton Soup Mixes.

Lipton promotes its products on TV on one of the Arthur Godfrey programs. If the costly TV and space advertising is to pay off at the point of sale, the Lipton packages that Godfrey displays over the TV screen must register instant recognition and be indelibly impressed in the memory of listening audiences when they go to shop.

But Lipton is convinced that the clear-cut recognition of its new packages on the store shelf is equally forceful on the TV screen.

Continued use of television as well as the need for stronger pre-sell of the packages in printed advertising to associate the package with advertising at the point of sale led Lipton to an intensive analytical study of its former packages. The study revealed what was needed.

Experience and observation showed that the basic design elements of the Lipton Tea packages—which were strong and simple and enjoyed wide consumer recognition—could be retained. This was especially true of the illustration of Sir Thomas Lipton's face, which has been a major element on the package for years. ⁶

In the case of the Lipton Soup Mix package, it was judged better to discard the basic design completely and start fresh. The old package had originally been planned to do the job of introducing a new idea—three packages of dehydrated soup mix as a unit. The words, "3 packages," had therefore been displayed in a wide streamer across the face of the package. Today consumers are familiar with soup in this new form. The primary emphasis can be turned to brand and product display.

In each case the aim has been to make the package "faster." Thus the new ones are more quickly seen on the store shelf and, when Godfrey holds them up to his television audience, the Lipton brand and product name register instantly. The entire impact is not only faster, but more pleasing to the eye, Lipton believes.

Simplification and strong emphasis on primary elements were the major aims of the new tea packages. The illustration of Sir Thomas Lipton was changed from an old-fashioned, detailed, literal line drawing to a poster-

SIMPLIFICATION and strong emphasis were the major aims of the new tea packages. A literal line drawing of Sir Thomas Lipton has been changed to a poster-like representation. Lettering is shorter and broader. White patch focuses attention on the slogan, "The Brisk Tea."

DISPLAY CARTONS are provided for single packets of onion-soup mix. Design is similar, but product is marketed in single units, rather than in cartons of three, as consumers not so familiar with item prefer to buy only one of the packets at a time.



like representation. In this change the illustration has become a definite, quick-paced trademark.

The same style of lettering of the name Lipton is used, but the letters are shorter and broader, and give a third-dimensional effect by the use of a black shadow back of them.

The color scheme remains the same, but is used in a manner that strengthens the over-all pattern. The old package was red with a broad center band of yellow. On the new, the yellow appears only in the lower right-hand section and is laid on in a sweeping curve that leads the eye to the cup of

tea in the hand of the Sir Thomas Lipton illustration. A small white patch breaks the curve to focus attention on the slogan, "The Brisk Tea." The various elements are arranged so that the eye catches the name "Lipton Tea," "The Brisk Tea" and the head-and-shoulders impression of Sir Thomas Lipton, one, two, three in that order.

The poster-like package bids boldly for attention amid its competition. The same basics of strength, simplicity and emphasis also make it highly photogenic so that once seen on TV or in an advertisement, the shopper remem-(This article continued on page 204)

LIPTON
VA POUND
VA POUND
VA POUND
VA POUND
ORANGE PERCE
AND PERCE
PERCE
ORANGE PERCE
AND PERCE

See "Lipton Tea" (Packaging's Hall of Fame), Modern Packaging, Feb., 1951, p. 86.



ALL SIDES SELL Golden Grain egg noodles. Trade and product name in bright red, yellow and white appear on four sides of the new cellophane bags. Identity is there no matter how the packages are stacked.

Four-faced noodles

Cellophane bags printed on all sides give new "4-D" sales potential in mass display

Golden Grain Macaroni Co., San Leandro, Calif., Western pioneers in the use of cellophane for macaroni packages, is introducing what it calls a new "4-D" package—a cellophane bag with every face printed—thus providing four-dimension selling.

The aim of the new packages is maximum display no matter how they are stacked on the shelf. One of the exposed sides—all of which are printed in red, yellow, white and blue on transparent cellophane—is always selling, the company reports. The face of the package tells that Golden Grain is salt free—contains more than 12% protein, is low in calories, is enriched with valuable vitamins, minerals and iron. Each package also states the cooking time of the product.

Right and left sides of the "4-D" package carry the Golden Grain trademark, a listing of contents and repeats the low-calorie theme. The bottom panel also clearly identifies

the item, trademark and low-calorie selling point.

Important features of the new packages are the pre-tested recipes and cooking information printed on the back, which encourage homemakers to try new ways of using the products

Also on the back face is a premium offer which Golden Grain reports to be one of the most successful in the history of the macaroni business, offering a premium of a white or dressprint cotton flour bag.

A careful analysis of the company's old packaging in food stores and supers convinced Golden Grain officials that in many cases product and brand identification was being buried in mass display. No longer could they depend on a single package face to carry product and brand information.

A test run was made on new packages which were stacked beside the old ones. The results were so conclusive that the company decided to redesign its entire line, including dried-bean and fruit products.

The cellophane packages are a part of an over-all packaging program the company started last spring with the introduction of its lasagne package. This window carton, designed for impulse purchasing, is colorfully printed in red, yellow and blue with full-color vignettes of lasagne dishes and recipe information on back panels.

Golden Grain's Spaghetti Dinner also is appearing in the new family dress. This package follows the Golden Grain red, yellow and blue, and features a spectacular vignette of the spaghetti dish when displayed.

Even shipping containers have a new look. Each carries a big Golden Grain logotype and pushes the lowcalorie, high-protein theme. Every face identifies Golden Grain and each is packed so that the packages inside are exposed for pricing when the case is opened from the top.

The company looks forward to an even greater sales increase due to (1) production of only top-quality merchandise, (2) attractive packaging and (3) aggressive merchandising and advertising.

CREDITS: Printed cellophane bags, The Dobeckmun Co., 3301 Monroe Ave.. Cleveland 13, Ohio, and Milprint, Inc., 4200 N. Holton St., Milwaukee 1, Wis.

QUICK IDENTITY on the self-service shelf is illustrated by this mass display next to company's new cartons for spaghetti dinner, also part of the package restyling program.





Another Family
of Prestige Products
Packaged by
BURT



F. N. Burt Company Inc. • Manufacturers of Small Set-up Boxes, Folding Cartons and Transparent Containers 500-540 Seneca Street, Buffalo 4, New York Offices in Principal Cities Or Write Direct Canadian Division: Dominion Paper Box Co. Ltd., 469-483 King St. W., Toronto, Canada



Packages for Nestle-LeMur, New York





From the <u>Gardner</u> Gallery of famous American Packages



... AND SOMETHING BIGGER!

When popular choice makes certain products nationally famous, the manufacturers of those products have a right to feel proud.

And when so many of those manufacturers turn to Gardner for the folding cartons in which to package their products, we can't help feeling a bit proud, ourselves. But it's a *challenging* sort of pride, not the "pat yourself on the back" kind.

Here at Gardner we believe in never being quite satisfied with a good job. We feel an obligation to ourselves—and to our customers—to do even better, tomorrow, what we have gained recognition for doing well, today.

We think that's an important reason why you'll find so many of America's most famous products packaged in Gardner cartons.

THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboards

GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio; Lockland (Cincinnati), Ohio Sales Offices in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis



One PEELING or WRINKLED label is too many

In a mass display of your product, one poorly sealed label can spoil the impression of quality your containers should convey. That hurts sales!

Labels applied by the Thrifty Labeler stay put—even though containers are odd shaped or have recessed surfaces, are hot or cold, wet or dry when labeled. Containers can be handled immediately after labeling without danger of label slipping.

The Thrifty Labeler seals the label to the container by an improved device that exerts continuous flexible pressure for a longer period of time than conventional machines. Yet you get production speeds from 40 to 120 containers a minute, depending on size. Can be hand-fed or hooked up to your filling and capping line.

Find out more about the high operating efficiency and low initial cost of the Thrifty Labeler.

Write for complete information

THE NEW

HIGH SPEED Labels up to 120 containers a minute.

EASILY ADJUSTED Handles a gallon jug or a 4-ounce bottle

USES HOT, COLD OR THERMOPLAS-TIC Adhesives

CONTINUOUS MOTION

STRAIGHT-LINE DESIGN

FLEXIBLE-PRESSURE SEALING Bonds labels so peeling and wrinkling

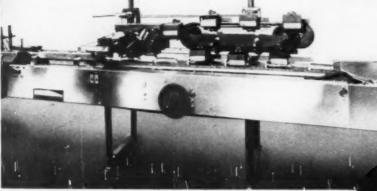
ACCURATE LABEL REGISTRATION

LOW COST

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Charles A. Southwick Jr. . Technical Editor

Polyethylene carboys

A report on the physical and chemical properties of blow-molded carboys, with permeability data. By J. H. PARLIMAN*

Three types of large polyethylene containers for the shipment of bulk chemicals have been described. However, it is with the blow-molded, one-piece, carboy bottles that the greatest experience exists. This article will discuss only the carboy bottles produced by the blow-molding method.

Estimated permeation values for a number of common chemicals, along with chemical resistance data are given in Tables I and II for 13-gal. carboy bottles.

A frequent source of questions regarding carboys is the matter of Interstate Commerce Commission regulations and specifications. Therefore, considerable space is given to the development of the Interstate Commerce Commission specifications under which blow-molded polyethylene containers are made and to the regulations affecting chemicals shipped in these containers.

The 6%- and 13-gal.-capacity blow-molded polyethylene carboys were first introduced at the American Management Assn.'s National Packaging Exposition in April, 1952. These one-piece, light-weight plastic carboys aroused wide interest and five months later the Interstate Commerce Commission had approved these packages as "polyethylene carboys in plywood drums," Specification 1F. At the same

time the ICC gave the first formal approval for shipping a specific liquid in the 1F carboy—hydrofluoric acid of not over 60% strength.

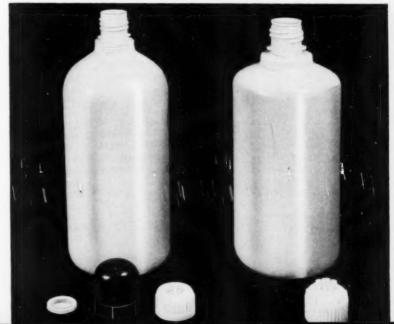
First commercial use of the 1F carboy was by the General Chemical Division of Allied Chemical & Dye Corp., for hydrofluoric acid and other fluorine chemicals.

During the year following ICC approval, the polyethylene carboys suc-

cessfully passed the critical customer field and laboratory first-year testing period. No functional faults were found with the 1F packages and the carboy-bottle manufacturer (Plax Corp.) reported exactly two carboys returned on complaints during this first year. These were obviously misblown bottles, which had been passed by pilot inspection standards.

This rather remarkable record was

1. COMPARISON of (left) an early 1F $6\frac{1}{2}$ -gal. polyethylene carboy bottle with polyethylene liner, inner polyethylene closure and outer phenolic closure with the presently marketed 1F $6\frac{1}{2}$ -gal. polyethylene bottle with its single polyethylene closure, illustrated at the right.



^{*}Manager, Product Development, Plax Corp., West Hartford, Conn. 'See "Polyethylene Shippers," Modern Packaging, Oct., 1953, p. 133.

the result of a number of factors. First, while the 13-gal, carboy weighed five times as much as the largest previously blown polyethylene bottles, larger and larger polyethylene bottles had been commerically blown over the years and the required basic blowing information was available. In 1946 the maximum size blown was one pint. Later a quart bottle appeared and by 1951 1-gal, and later 2-gal, bottles were marketed.

Secondly, a very complete testing program was carried out before the bottles were released for use. Every precaution possible was taken to avoid any failures in the field. Last, and particularly important, was the fact that an excellent ICC specification had been written for the 1F carboy.

ICC specifications

A full year before the first carboy was blown, the bottle molder, together with the plywood jacket manufacturer, had approached the Bureau of Explosives regarding the setting up of tentative specifications for polyethylene carboys. No comparable specification on the polyethylene carboy bottles was then available, al-

Seymour & Peck Co., Division of Greif Bros. Cooperage Corp., P.O. Box 407, Rahway, N. J. though the 1E specification for "Glass Carboys in Plywood Drums" gave an excellent basis for the plywood jacket specifications.

It was felt that a new impact test should be devised for the proposed ICC bottle specification, as the old "swing" test used on boxed glass carboys was not severe enough for polyethylene testing. Therefore, low-temperature drop testing was carried out and in March, 1952, the first cooperative impact tests were run at the New York Testing Laboratory in New York City. Present during these tests were representatives from the package man-

(Text continued on page 136)

TABLE 1—PERMEABILITY OF BLOW-MOLDED POLYETHYLENE CONTAINERS

			Estimated % weight loss of		
Chemical	Length of test months	Temperature of test	product/yr.from 13-gal. carboy	ICC status	Comments
Acetic acid, 56%	12	70°F.	0.04%	Non-regulated	
	12	100°F.	0.14%		
Acetic acid, glacial	12	70°F.	0.20%	Non-regulated	
	36	Room	0.32%		
	12	100°F.	0.87%		
Aluminum chloride solution, 50%	17.5	Room	0.004%	Non-regulated	
Aqua ammonia	12	70°F.	0.04%	Non-regulated	
10% NH ₃	12	100°F.	0.12%		
Aqua ammonia	12	70°F.	0.16%	Non-regulated	
28% NH	12	100°F.	0.50%		
40% chromic	1.1	70°F.	0.02%	Regulated. Approved under	Proprietary products con-
acid solution	1.1	100°F.	0.06%	paragraph 73.287 (a)(1). See paragraph 73.245 (a)(13)	taining chromic acid com- mercially shipped in 1F car- boys. Over 40% concentration should be tested
Ferric chloride	3.7	Room	0.003%	Non-regulated	
solution 40%	1	100°F.	0.04%		
Fluoboric acid 45%	12	70°F.	nil	Non-regulated	Packaged for several years
	12	100°F.	0.02%		in 16-oz, polyethylene bot- tles and for over one year in 1F carbov
Formaldehyde, 36%	12	70°F.	0.03%	Non-regulated	
, , ,	28	Room	0.05%	8	
Formic acid, 85-90%	12	70°F.	0.04%	Regulated. May be shipped	
	12	100°F.	0.15%	in 1F carboys under provisions of paragraph 73.289 (a)(1) which authorizes containers under paragraph 73.245 (a)(13)	
Hydrochloric	12	70°F.	0.01%	Regulated. 1F carboy ap-	
acid, 20%	17.5	Room	0.02%	proved under paragraph 73.263	
	12	100°F.	0.03%	(a)(13)	
Hydrochloric	12	70°F.	0.05%	Regulated. 1F carboy ap-	Now commercially shipped
acid, 36%	12	100°F.	0.20%	proved under paragraph 73.263 (a)(13)	in 1F carboys
Hydrofluoric	12	70°F.	0.01%	Regulated, 1F carboy ap-	Packaged in 1-pt. polyethyl
acid, 48-59%	12	100°F.	0.04%	proved under paragraph 73.264 (a)(16). Covers up to 60% grades	ene bottles under paragraph 73.264 (a)(2) for over fiv- years. Packaged in 1-gal polyethylene bottles for sev- eral years. Packaged in 11 carboys for over one year

Table I continued)			Estimated % weight loss of		
Chemical	Length of test months	Temperature of test	product/yr.from 13-gal.carboy	ICC status	Comments
Hydrofluosilicic acid, 26-30%	1.1 1.1	70°F. 100°F.	0.03% 0.11%	Regulated. 1F carboy approved under paragraph 73.265	Commercially packaged in 1F carboy
Hydrogen peroxide, 30%	12	70°F.	0.10%	(d)(2) Regulated. 16-oz. polyethylene bottles approved under para- graph 73.266. No information on permit issued on 1F car- boys	Packaged in 1-pt. polyethylene bottles for several years under ICC paragraph 73.266 (c)(4)
Lactic acid 50%	12.5	Room	0.02%	Non-regulated	
Methanol	12 35 48 12	70°F. Room Room 100°F.	0.10% 0.16% 0.16% 0.44%	Regulated under paragraph 73.125. No information on permits issued on 1F car- boys	Methanol - water mixtures packaged in 1F carboys. 2- oz. bottle used in 48-month room-temperature test
Nitric acid 10%	3.6	Roor.1	0.02%	The Bureau of Explosives should be contacted regarding mixtures containing 10% or less of regulated acids or alkaline materials and containing no other dangerous materials, as to whether they are subject to definition as Corrosive Liquids under ICC regulations	
Nitric acid 20%	12 12	70°F.	0.01% 0.04%	Regulated under paragraph 73.268	
Phenol, 95%	12 12	70°F. 100°F.	0.03% 0.21%	Regulated under paragraph 73.349. No information on per- mits issued on 1F carboys	Pharmaceutical products con- taining phenol have been packaged for several years in polyethylene bottles
Phosphoric acid 85% ortho	12 24 12	70°F. Room 100°F.	+0.003% +0.004% nil	Non-regulated	At 100°F, total weight change was very low
Sodium hydroxide, 10%	12 12	70°F. 100°F.	0.01% 0.04%	The Bureau of Explosives should be contacted regarding mixtures containing 10% or less of regulated acids or alkaline materials and containing no other dangerous materials, as to whether they are subject to definition as Corrosive Liquids under ICC regulations	
Sodium hydroxide, 40%	12 12	70°F. 100°F.	0.002% 0.01%	Regulated. 1F carboy approved paragraph 73.249 (a) (1). See Paragraph 73.245 (a) (13)	1-gal. polyethylene bottles are approved under ICC regulations. Paragraph 73.249 (a)(9)
Sulfuric acid	9	70°F.	0.03%	Regulated paragraph 73.257.	1-qt. polyethylene bottles
36% battery electrolyte	9	100°F. 130°F.	0.03% 0.16%	No information on permits is- sued on 1F carboys. However, permits will undoubtedly be issued on request	ICC approved under para- graph 73.257 (a)(6). 1-gal. polyethylene bottles ICC ap- proved under paragraph 73.257 (a)(7). Note: 73.257 applies to acid not over 478
Sulfuric acid 50%	12 12	70°F. 100°F.	nil 0.01%	Regulated paragraph 73.272. No information on permits is- sued on 1F carbovs	At 70°F, weight loss very low
Sulfuric acid 93%	12 12	70°F. 100°F.	+0.005% +0.004%	Regulated paragraph 73.272. No information on permits is- sued on 1F carboys	60% or over concentration darkens slowly when pack aged in polyethylene. How ever, no other known effect 'Acid does not attack the
		4			polyethylene. Commercially
Water	12	70°F.	0.02%	Non-regulated	shipped in 1F carboys Excellent package for dis
water	25 Room 0.02% Non-regulate 12 100°F. 0.05%		Non-regulated	tilled and very high-purity water. Does not pick up im purities	



2. WEIGHING the 4-oz. Boston round permeability test bottles on Sartorius Selecta rapid-weighing balance in 70-deg.-F. room. Data from this type of test were used in preparing Table I.

ufacturers, the Bureau of Explosives and several chemical manufacturing concerns. During these tests 6½- and 13-gal.-capacity carboys, both naked and jacketed, were aged at minus 10 deg. F. and then dropped empty and full (calcium chloride solution) diagonally on the shoulder and bottom radius and flat on the bottoms and sides. Similar drops were made at room temperature. In addition, drops were made on 2-by-4 lumber (2-in. side up), the bottle landing flat on the side. Two-, four- and six-foot drops were made.

In general, these early carboys withstood this severe testing in good form. However, it was found that the phenolic outer closures cracked under low-temperature impact. Also certain minor design changes in the bottles were found advisable. As a result of this testing the final ICC-1F specification included this paragraph:

"Polyethylene carboys, as manufactured and filled to marked capacity with a material which remains in liquid form, shall be capable of withstanding a 4-ft. drop without leakage, after prior conditioning for 24 hrs. to at least minus 10 deg. F. or lower, onto solid concrete so as to strike diagonally on the bottom corner."

During this period of specification development, the Manufacturing Chemists Assn., Inc., was closely cooperating with the Bureau of Explosives and the package manufacturers. This assistance was most important, in view of the long and practical experience of the M.C.A. representatives in packaging and shipping dangerous chemicals and in writing new specifications.

In the summer of 1952 the Bureau of Explosives presented formal recommendations for the new 1F carboy specification to the Interstate Commerce Commission. The ICC accepted these recommendations and on Sept. 25, 1952, the 1F specification was issued, to be effective Oct. 25, 1952.

In addition to the above-discussed low-temperature drop test, the 1F specification included these points:

1. Minimum air space of 5%.

Marking as to nominal capacity, bottle manufacturer, and month and year of manufacture.

3. Requirements as to raw material, including a maximum polyethylene melt-index value of 2.5 gm./10 min., thereby prohibiting the use of polyethylene having an average molecular weight of less than approximately 19,500.

4. Minimum wall thickness of 1/16 in. and minimum weight of 4 lbs. for the 6%-gal. and 8 lbs. for the 13-gal. sizes.

5. Brief closing-device description.

6. Detailed description of materials and construction used in the phenolic-bonded plywood jackets. This included (a) "compression test side-to-side against flat surfaces of at least 5,000 lbs. without deflection of over 1 in." and (b) "one 4-ft. drop onto concrete so as to strike diagonally on either chime."

The fact should be mentioned that ICC specifications are intended as "minimum" specifications and are so written. Actually, carboys on the market now exceed the 1F requirements in most respects.

New design

The early carboys consisted of the blow-molded one-piece bottle, an injection-molded special polyethylene cap liner, an injection-molded polyethylene screw-on closure and a highimpact phenolic outer closure, plus the round plywood jacket.

As a result of laboratory testing and field experience, an improved package was designed and is now marketed, although the earlier version had given good performance. Included in the changes to new design were:

1. Height was decreased a little,

thereby lowering the center of gravity.

2. A single, heavier-weight closure replaced the old closure and liner and the outer closure. Three annular rings on the new closure sealing surface give high unit pressure seal and eliminate the need for the special liner. The new closure is so effective that no need is felt for the outer phenolic closure which did not give good low-temperature impact properties and which mainly served as a mechanical protection for the inner closure. A 2-in. hex nut was molded on the top of the new closure for torque wrench application.

The number of turns of thread engagement between the closure and bottle was increased from one and a

quarter to two.

4. Bottle air space was reduced from 8 to 10% to 6%.

5. Plywood jacket was also improved by: (a) Using a more chemically resistent outer surface varnish coating and increasing the number of coats from one to two. (b) Using the more highly corrosion-resistant monel metal staples in place of common steel staples. (c) Using monel metal sideseam strips in place of common steel with a chemically resistant coating. (d) Making design changes in the dual-sheet plywood construction to distribute the forming stresses better.

6. Improved low-temperature impact properties were provided due to

improved bottle design.
7. Improved designs made possible weight reductions of 5 to 10% for the complete jacketed units.

8. Inside neck diameter was increased from 2% to 2% in. in order to improve filling and pouring properties.

Fig. 1 is a photograph comparing the early and improved 6½-gal. 1F carboy bottles.

Advantages and disadvantages

The polyethylene carboy should be regarded basically as a new package. While it is, in some instances, used for the same purposes as glass, it was not designed as a substitute for glass. The 1F carboys have a number of important advantages:

1. Light weight. Important economically for shipping empty returns as well as full packages. Easy to

handle.

 Unbreakable. This is a factor in replacement costs. Lower insurance rates are anticipated for some plants. Long life is expected.

3. Ease of handling. The light weight plus unbreakability allow for faster handling with less labor. Can be rolled on chime by one man.

4. Filling and emptying are easy with the large neck I.D. (2% in.). The bottle necks are not prone to chipping.

5. Safety. Light weight, unbreakability and ease of handling give a particularly safe package.

6. High package capacity-to-volume ratio. The round packages need be stacked only one high when full and yet utilize small floor area. Empties can be stacked on the side like logs. Space saving is important both in shipment and in storage.

7. Screw-on closure gives a positive seal and avoids chemical dust and other contamination, as may be found with a plug-type closure.

8. Purity of polyethylene permits shipment of high-quality chemicals without fear of container contamination.

No package is without disadvantages and the 1F carboy is no exception.

At the present time the 1F carboys have a higher initial cost than the long-established glass carboys.

In some respects the limitations in the range of products which can be packaged may be considered a disadvantage. And yet the range of basic chemicals which are now packaged is steadily increasing as test data and field experience are accumulated. For instance, where concentrated nitric acid cannot be packaged, hydrofluoric acid can be packaged. This is discussed below in more detail.

Objection is sometimes raised to lack of complete transparency. The carboy bottles are a milky white translucent color, although liquid levels can be seen easily through the walls. For example, complete clarity has been demanded for the packaging of drinking water.

The question of stackability is frequently raised. While it is true that the present-day 1F carboys cannot be stacked one directly on the other, it should be remembered that due to the small floor area required for these packages, it has not been found necessary to "pyramid" the 1F carboys, as is common practice with other carboys for rail shipment, in order to package an equivalent number of pounds of chemical in a freight car. Thus special bracing, which is necessary for pyramid packing, is avoided.

Shipping or storage of empties is

TABLE II—RESISTANCE OF POLYETHYLENE CONTAINERS TO CHEMICALS

Chemical	Length of test months	Temperature of test	Tensile strength after test-p.s.i.	Elongation after test %
Acetic acid 56%	12	70°F.	2150	429
	19	Room	2450	435
	12	100°F.	2160	423
	12	165°F.	2060	389
Acetic acid, glacial	12	70°F.	2200	495
	12	100°F.	2210	495
Aluminum chloride solution, 50%	19	Room	2290	485
Aqua ammonia, 10% N	H ₃ 12	70°F.	2050	425
	12	100°F.	2040	445
Aqua ammonia, 28% N	H ₃ 12	70°F.	2200	496
	12	100°F.	2190	458
Chromic acid solution	1	70°F.	2240	436
40%	1	100°F.	2340	436
Ferric chloride solu- tion, 40%	6	Room	2190	485
Fluoboric acid,45%	12	70°F.	2110	446
	6	165°F.	2120	450
Formaldehyde, 36%	12	70°F.	2120	454
Formic acid, 85-90%	12	70°F.	2540	462
	6	165°F.	2290	417
Hydrochloric acid, 205	E 19	Room	2380	485
	12	100°F.	2040	437
	6	165°F.	2180	450
Hydrochloric acid, 369	6° 12	70°F.	2190	492
	12	Room	1880	475
	20	Room	1840	510
	12	100°F.	2180	470
Hydrofluoric acid	12	70°F.	1990	462
48-50%	12	100°F.	2140	475
	4	165°F.	2270	438
Hydroffuosilicic acid	1	70°F.	2140	475
26-30%	1	100°F.	2238	438
Hydrogen peroxide, 30		70°F.	2210	466
Lactic acid, 50%	14	Room	2270	485
Methanol	12	70°F.	2270	475
	36	Room	2050	500
	12	100°F.	2440	475
Nitrie acid, 10%	1	100°F.	2000	410
Nitrie acid, 20%	12	70°F.	2170	487
	12	100°F.	2090	462
ni i owa	1	165°F.	1490	0
Phenol, 95%	12	70°F.	2220	442
	12	100°F.	2170	442
731 1	4.7	165°F.	2100	429
Phosphoric acid	12	70°F.	2160	483
85% ortho	12	100°F.	2350	491
C-1:1-1-11 100	6	165°F.	2010	448
Sodium hydroxide 109		70°F.	2110	437
C. J. 1 1 1 100	6	165°F.	2040	454
Sodium hydroxide 40%		70°F.	2080	441
K.	12 6	100°F. 165°F.	2170	437
Sulfuric acid 36%	9		1990	441
battery electrolyte	9	70°F. 100°F.	2180	450
Sulfuric acid 50%	12	70°F.	2210 2160	458
The second of the	12	100°F.	2220	437
	3	165°F.	2080	408
Sulfuric acid 93%	12	70°F.	1980	450
South and John	24	Room		395
	12	100°F.	1805	486
	1	165°F.	2020 1340	412
Water	12	70°F.		0
	12	100°F.	2270 2330	454 446
	2.64	IUU I.	2000	(A/APS

 ¹⁻gal. bottle used as 12-mo. room-temperature test container.
 24-mo. room-temperature test used 95% acid.

no problem, as they may be stacked on the sides.

If a sufficient demand for "hats" or other types of stacking aids is ever evidenced, the jacket manufacturers believe such accessories can be successfully designed and supplied.

Uses

Not all chemicals can be packaged in the 1F carboys. In this respect they are no different from other packages. However, the list of liquids commercially shipped in the 1F carboy has grown rapidly. These include plating solutions (containing chromic acid), fluoboric acid, hydrochloric (muriatic) acid, hydrofluosilicie acid, hydrofluorie acid, various acid metal-cleaning solutions, alcohol solutions and sulfuric acid.

An even greater number of chemicals is presently stored in polyethylene carboys in laboratories and factories and shipped inter- or intra-plant. This type of end use has spread rapidly and now includes dozens of industries. Included in these products are battery electrolyte, distilled or other very high-purity water, dilute and concentrated sodium and potassium hydroxide solutions, hydrazine hydrate solutions, alcohols, drugs and adhesives.

A number of other common chemicals are thought to be packageable in polyethylene carboys and are now on test, including acetic acid, aqua ammonia, hydrogen peroxide, lactic and similar acids, phenol-containing products, formic acid and formaldehyde.

In the group of products which should *not* normally be considered for packaging in 1F carboys are:

 Carbon tetrachloride—high permeability.

2. Carbon disulfide-high permeability.

3. Liquid bromine-high permeability and possible chemical attack.

4. Kerosene or gasoline-high permeability.

Benzene, toluene or xylene—high permeability.

6. Simple, low-boiling ethers-high permeability.

7. Concentrated nitric acid—at elevated temperatures, and to some extent at room temperature, chemical attack takes place. And yet, recognizing this fact, there are concerns which store this material at normal temperatures, feeling that the package is still safer than others they can use.

It is interesting to note that most products which permeate at excessive rates do not chemically attack the polyethylene. Thus some concerns do find special uses for packaging products in polyethylene which would have excessive permeation rates for common end uses. These usually involve short-time storage.

Permeability data

Table I gives estimated yearly percentage weight losses due to permeation for 1F 13-gal. polythylene carboy bottles, ICC status, and various comments for 20 different chemicals (some two or more concentrations) commonly packaged in or considered for packaging in the 1F carboys. In most cases the actual permeability testing was carried out using standard Boston Round 4-oz. blow-molded polyethylene bottles of 16% ± % gm. weight. Weighings were made to ± 0.001 gms. or closer. In most instances the tests were carried out under controlled temperature conditions, but in a number of instances the bottles were stored at uncontrolled room temperatures. Additional details of the test method used have been described3. Length of test and temperature test condition are stated for each chemical.

The 13-gal, carboy bottles not only have considerably heavier walls than the 4-oz. bottles, but the ratio of wall area to capacity is very much smaller for the larger bottles. A factor of 28:1 was used in converting known accurate permeation losses from 4-oz. to 13-gal. size. It is most difficult to measure the weight loss due to permeability actually using a 13-gal. container. For instance, it is estimated that a 13-gal. bottle of hydrochloric acid would lose 0.05% of the net product weight at 70 deg. F. over a full year. The total acid weight would be about 128 lbs. and the bottle (no outer jacket) would weigh roughly 9 lbs. Thus the involved weight change is slightly over 1 oz. for a 137-lb. total package. However, some such limited tests have been carried out using some of the faster-permeating liquids and the results indicate that the values given in Table I are reasonably accurate. However, no significant weight change was noted when the slow-permeating liquids were tested in 13-gal. carboys for a year.

Chemical resistance

Table II gives data on the resistance to chemical attack of polyethylene

See "Squeeze-Bottle Tests" by J. H. Parliman, Modern Packaging, Sept., 1950, p. 141.

containers. The 4-oz. test bottles used for the permeability tests (Table I) were later used in the chemical resistance testing. The bottles were emptied and three standard ASTM ½-in.-wide tensile specimens were cut circumferentially from each of the bottles.

The samples were then tested on a Baldwin-Southwork Tate Emery tensile machine at a cross-head rate of approximately 18 in./min. Table II lists the tensile strength and elongation of the bottle side walls, together with length of time of storage of the liquids in the bottles and test temperature.

It is unfortunate that tensile strength-elongation measurements were not made on all of the test bottles prior to the start of the permeability testing. Some of the bottles had been in test storage for two to three years and these physical measurements were not contemplated when the bottles were put on test. Past experience indicates the bottles would have typical tensile strengths of 1,800 to 2,200 p.s.i. and typical ultimate elongation values of 400-500%.

It has been found that when chemical attack does take place, it can often be detected as a decrease of elongation before it shows up as a tensile-strength reduction.

The excellent chemical resistance of polyethylene is demonstrated by the lack of attack at temperatures of 165 deg. F. for such materials as formic acid, hydrofluoric acid, phosphoric acid, sodium hydroxide and 50% sulfuric acid.

Data such as are given in Tables I and II must be assembled over a period of years. This type of testing has already been under way for about four years and it is expected that the effort will be continued. It is felt that only through such package-manufacturer and customer testing in the laboratory and field will the final position of the 1F carboy in the chemical shipping field be established.

Acknowledgments

The author is indebted to the Wright Air Development Center, Wright-Patterson Air Force Base, Ohio, for permission to use a considerable portion of the information given in Tables I and II. The data were taken from work done on 4-oz. bottles by the Plax Corp. on Contract No. AF 33(616)-112.

Moisture loss in frozen shrimp

Studies indicate carton-overwrap combination can deliver a superior product, with glazing unnecessary.

By MARIAN KLEIN*, L. E. SIMERL† and ERNEST ADAMS*

Because of the rapid growth of the shrimp industry during the last few years, the need for additional information on the packaging requirements of frozen shrimp was found necessary. It was believed that the information would assist other branches of the food industry in understanding the value of carton-overwrap combinations in protective packaging.

An investigation of the correct packaging conditions for several types of shrimp was started in December, 1951, by a review of the published literature and by discussions with several experts in the field. It was determined that the bulk of all frozen shrimp is sold as headless raw shrimp, which are packed in 5-lb. packages and glazed with water. The glaze in this size of package amounts to 12 to 20 oz. of water per package and serves to protect the shrimp during subsequent storage at 0 deg. F. There has been considerable production of small consumer-size packages of headless raw shrimp packaged without glazing using a printed overwrap and some 5-lb. packages have also been made with overwrap. The experience of these packers and investigators has been that protection from the overwrap was apparently sufficient and that there were no adverse effects on the quality of the shrimp $(1, 3, 4, 5^1)$.

As a result of the recommendations of several authorities on shrimp processing and marketing, the present tests were outlined incorporating all suggestions which were obtained.

In the field of frozen-food packaging, the glazing of shrimp is almost a unique operation. Other frozen foods, including fish fillets, poultry, meat and vegetables, are held for periods of at least one year when packaged without glazing but with a suitable watervapor barrier, such as an overwrap (2). Extensive packaging tests in this laboratory on all these foods have shown that adequate protection is provided by a suitably waxed carton with a special overwrap which features a hard wax coating designed for use at the low temperatures encountered in storage of frozen foods.

The glazing operation involves extra costs and problems, including the following:

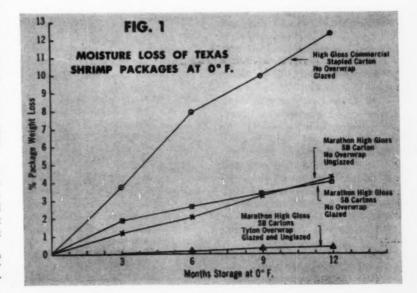
- 1. Sharp freezing prior to glazing occasions some undesirable desicca-
- 2. Shrimp packages must be opened after the initial freezing period and passed through the glazing line, involving extra labor.
- 3. Additional refrigeration capacity and 35 deg. F. glazing water are re-
- 4. The ice glaze increases the package weight 15 to 20% with simultaneous increase in storage and shipping charges.

5. Undesirable effects, such as water leakage on inverting cartons to obtain a surface glaze, individual packages freezing together, water damage to corrugated shipping containers and prolonged defrosting periods, are encountered.

In view of these many disadvantages, it appeared desirable to eliminate the glazing operation. Therefore, a test program was initiated to determine whether unglazed shrimp could be held satisfactorily for longterm storage at 0 deg. F. when protection was provided by a heavy waxed carton with a suitable outer overwrap.

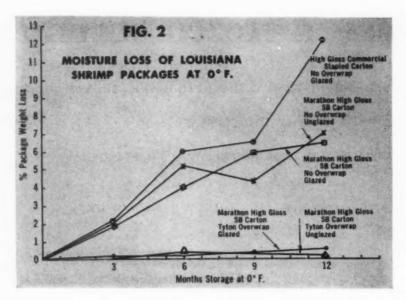
Procedure

Shrimp packing. Texas brown shrimp, size 31-35, four days old (ice storage on boat), were packed at the Booth Fisheries Corp. plant, Brownsville, Tex. Thirty packages were then frozen, a portion of the total were glazed one day later at the Pan Am Frozen Food plant and the shipment



Of Marathon Corp., Menasha, Wis. Formerly of Marathon Corp.; now with Olin Industries, Inc., Research & Development Dept., Cellophane Div., New Haven, Conn.

1 Numbers in parentheses identify "References" appended.



was then sent in dry ice to the Marathon Corp. Laboratories at Menasha, Wis. A duplicate test was set up at New Orleans, La., with white shrimp, size 31-42, which were six days old when packed. The packages were handled under commercial conditions at both plants, with the exception that the top shrimp were arranged in a "layer pack" for better observation of desiccation and for photographs. A net weight of 5 lbs. 3 oz. (drained) was used. The glaze at Brownsville averaged 18.2 oz. and the glaze at New Orleans averaged 23.2 ounces.

The packages made up at both Brownsville and New Orleans had the following variations in glazing and wrapping:

A. Glazed shrimp

1. Marathon high-gloss waxed, solid bleached carton with glued construction: (a) No overwrap; (b) Moistureproof cellophane overwrap; (c) Tyton waxed-paper overwrap (30-lb. opaque paper waxed to 44 lbs. with a special resin-fortified blend of waxes).

2. Current commercial carton fabricated of high-gloss waxed board with stapled construction: (a) No overwrap.

B. Unglazed shrimp

1. Marathon high-gloss waxed, solid bleached carton with glued construction: (a) No overwrap; (b) Moistureproof cellophane overwrap; (c) Tyton waxed-paper overwrap.

All cartons were one-piece telescope style.

Package constructions A-1-b and A-1-c above, in which shrimp were glazed and the cartons overwrapped, are probably not commercially practical because of economics, but were included to indicate the degree of pro-

TABLE I—SHIPPING WEIGHT OF SHRIMP IN MASTER CONTAINERS (Louisiana Shrimp)

Type of pack	Weight				
Glazed	70 lbs. 15 oz				
Glazed	71 lbs. 5 oz				
Unglazed	56 lbs. 5 oz				

tection possible by both glazing and overwrapping and to provide a standard of quality of shrimp against which other packages could be measured. Another package, B-1-a, in which the shrimp were not glazed and the cartons not overwrapped, is also not a commercial package because of its poor keeping qualities, but it was included to determine the extent of quality degradation which might occur with very poor packaging.

Package testing. Upon arrival at the laboratory, the master shipping containers were weighed, the individual packages were removed and examined, and damaged overwraps were replaced. The last step was necessary only in the case of the cellophane overwraps, as these were the only overwraps which arrived in a damaged condition. All packages were then transferred to storage at 0 deg. F. (±1 deg. F.) after removal of surface ice from the outside of the packages. The freezer used was a Wilson 8 by 12 ft. commercial unit, with refrigeration provided by a Bush blower using Freon 12, at a design temperature of minus 10 deg. F. Daily temperature records indicated that the temperature of the air from the blower was 0 deg. F. ± 1 deg. F. (the same temperature as that in the entire room). The refrigerating coils were

TABLE II—WEIGHT LOSS OF 5-LB. SHRIMP PACKAGES AFTER STORAGE AT 0 DEG. F.

		Texas shrimp				Louisiana shrimp			
Type of		3	6	9	12	3	6	9	12
pack	Packaging materials	Mo.	Mo.	Mo.	Mo.	Mo.	Mo.	Mo.	Mo.
Glazed									
la	- Marathon high gloss								
	SB carton, no	1.00	2.70	N 401	4 100	1.00	4.00	B 00	0.40
11	overwrap	1.9%	2.7%	3.4%	4.1%	1.9%	4.0%	5.9%	6.49
11	- Marathon high-gloss								
	SB carton, cellophane	0.10	0.10	0.00	0.10	0.00	0.00	0.40	0.00
L	overwrap - Marathon high-gloss	0.1%	0.1%	0.2%	0.1%	0.0%	0.0%	0.4%	0.39
10	SB carton, Tyton								
	overwrap	0.08	0.19	0.19	0.3%	0.1%	0.2%	0.4%	0.69
9.0	- Commercial stapled	0.02	0.10	0.1%	0.0%	0.1%	0.2%	0.4%	0.07
art)	high-gloss carton,								
	no overwrap	3.8%	8.0%	10.0%	12.4%	2.1%	6.0%	6.59	12.29
Unglaze	A	30.3.0	.,,,,,	247.47	12.11	and A.A.	0.0%	0.00	14.4
-	- Marathon high-gloss								
	SB carton,								
	no overwrap	1.2%	2.1%	3.3%	4.3%	2.0%	5.2%	4.3%	7.09
11	- Marathon high-gloss							41.510	* 100
	SB carton, cellophane								
	overwrap	0.2%	0.2%	0.2%	0.2%	0.1%	0.0%	0.1%	0.29
10	- Marathon high-gloss								
	SB carton, Tyton								
	overwrap	0.0%	0.1%	0.3%	0.4%	0.0%	0.3%	0.3%	0.2

automatically defrosted once a day for 30 min., with a maximum air temperature in the room of approximately 5 deg. F. The packages were arranged on racks out of the direct air blast, with free air circulation on all sides of each package.

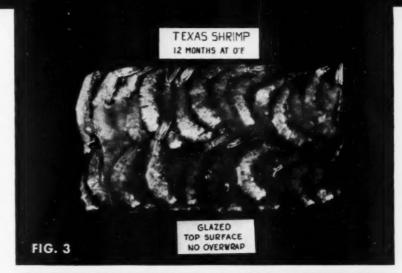
After three days' holding period at zero, four packages for each type of shrimp and package construction were weighed to 0.1 gm. to determine the initial package weight. All weighings were made inside the zero room. One set of packages was then reweighed and removed from test after three, six, nine and 12 months' storage. After determining the package weight loss, the cartons were opened and the shrimp examined visually for amount and location of the desiccation.

Taste tests. The 5-lb. packages of shrimp, after observation of desiccation, were defrosted as rapidly as possible under running tap water at about 50 deg. F. The surface shrimp, representing the most extreme damage by visual observation, were isolated for the taste tests. These shrimp were peeled, veined and washed. The shrimp for taste tests were cooked under contolled conditions. One pound of cleaned shrimp was placed in 1 gal. of boiling water. When the water came to the second boil, the shrimp were removed from the water, drained and chilled in cold water. The total time in hot or boiling water was about 3 minutes. The boiled shrimp, identified only by code number, were tasted by a trained panel of five persons. Observations of color, taste, texture and off-flavor were recorded.

The taste panel consisted of a group of typical Midwesterners who were not particularly familiar with shrimp at the start of the test. They were familiar with panel testing of many other foods, especially frozen meats, poultry and fish. The taste panel was trained during the initial period of

TABLE III—DEFROSTING TIME OF 5-LB. PACKAGES OF FROZEN SHRIMP USING RUNNING WATER AT 50 DEG. F.

Type of pack	Defrosting time (min.)
Texas brown shrimp, glaze	d 45
Texas brown shrimp, not glazed	20
Louisiana white shrimp, glazed	70
Louisiana white shrimp, no glazed	45





storage (zero time in months) using shrimp from extra 5-lb. test packages. The cooking procedure was decided upon only after a series of trial cooks were made in which the ratios of shrimp to water, salt in water and cooking time were varied. The final procedure, using no salt, was believed to give fairly reproducible results without interference to shrimp taste or texture.

Results and discussion

A. Condition of the master shipping containers and individual cartons upon arrival at the laboratory.

1. The 10 glazed packages within the master carton were frozen together as a result of water leakage from inversion of the cartons after glazing. These cartons had to be forced apart prior to testing.

2. All the glazed shrimp packages had, on the outer surface of the carton, a heavy layer of ice, which was removed before the storage tests.

3. The cellophane overwraps were generally severely damaged in shipment and many had to be replaced prior to testing. The Tyton-overwrapped packages arrived intact.

4. The master shippers, each containing ten 5-lb. shrimp packages, were weighed upon arrival to determine the difference between the weight of shippers with unglazed shrimp and with glazed shrimp. This weight difference is shown in accompanying Table I.

B. Moisture loss of individual cartons after 12 months' storage. The weight loss with the various types of packages on storage at 0 deg. F. during the 12-month period is shown in Table II.

The weight losses were on the basis of the total package weight, which included shrimp, glazing water, if any, carton and overwrap, if any. It was impractical to determine moisture loss on the shrimp net weight, because of glazing water. These data are

plotted graphically in Figs. 1 and 2. The differences in protection obtained on the two sets of samples as shown in Fig. 1 and Fig. 2 are probably due to differences in carton construction and in the amount of glazing (Louisiana glazing was heavier).

C. Visual observation. One of the increasingly important factors in the packaging of frozen foods is the visual appearance of the product to the housewife. As the use of frozen foods and particularly household freezers becomes widespread, more and more people are learning the significance of "freezer burn," or loss of moisture (desiccation) of frozen foods. Therefore, close observations were made of the visual appearance of the shrimp in the various packaging combinations.

At three months, the glazed packages were still in good condition, with only slight desiccation. Shrimp in the overwrapped packages were in excellent condition. After six, nine and 12 months, the shrimp in the stapled commercial carton were badly desiccated, with the glaze partially evaporated. The packages of Louisiana shrimp were less affected than the Texas shrimp, presumably because of the heavier glaze on the former. The overwrapped packages were all in excellent condition, with slight desiccation only on a few surface shrimp and at corners. The visual observations of desiccation and loss of glaze correlated exactly with the weight losses (Table II and Figs. 1 and 2).

The visual examination of the packaged shrimp is also demonstrated by photographs identified as Figs. 3 and 4 (Texas) and 5 and 6 (Louisiana). In the case of the current commercial package, the pictures of the top surface of the packaged shrimp show noticeable loss of glaze and desiccation of shrimp after 12 months of storage. In comparison, the pictures of the unglazed shrimp packaged in a Tytonoverwrapped carton show only very slight surface desiccation after a similar period of time.

D. Defrosting time. The length of time required to defrost 5 lbs. of frozen shrimp under running water (50 deg. F.) is shown in Table III. The data show that elimination of the ice glaze considerably reduced defrosting time. The difference between the comparative thawing times of Texas and Louisiana shrimp was probably due to the variation in the amount of ice glaze on the two sets of packages. The Louisiana shrimp had a heavier

E. Results of taste tests. The initial taste tests on shrimp shipped directly from the Gulf indicated both Texas and Louisiana shrimp to be tender, sweet, juicy and of mild flavor. There was a definite difference in both flavor and texture between the brown and the white shrimp, which was attributed to difference in species and

At three months there was very little change in any of the shrimp by taste and texture comparison. At six, nine and 12 months, the shrimp in cartons with high moisture loss were slightly tough and less juicy, but there was no off-flavor development, either from oxidation or other cause.

At 12 months both glazed and unglazed shrimp from overwrapped packages were tender and juicy, with good flavor; however, there was a slight loss of sweetness in all shrimp. Using blindfold tests, the panel was unable to distinguish between glazed and unglazed shrimp packaged with an overwrap.

Conclusions

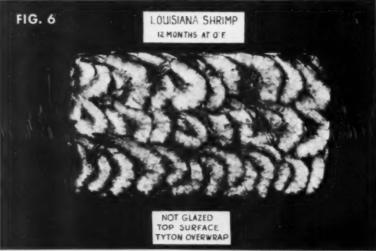
The conclusions reached in this study are listed as follows:

1. Unglazed shrimp can be packaged successfully for 12 months' storage at 0 deg F. in a high-gloss waxed carton with a satisfactory overwrap. Glazing is not necessary for protection.

2. Tyton waxed-paper overwrap was equal to the cellophane overwrap from a protective standpoint. The cellophane overwraps were badly damaged during shipment of finished packages, whereas the Tyton overwraps withstood shipment without damage.

3. Taste testers could not distinguish between glazed and unglazed shrimp from overwrapped packages. These shrimp were tender and juicy, (This article continued on page 195)







This hair tonic bottle, in use for 24 years, had excellent brand recognition. But the packer was willing to trade this identity for the greater benefits of a modern package. His question: Could Armstrong re-design his container to make it more stable, smarter looking, and handier for dealers and consumers?

Smoother performance and a harder selling package are two benefits that often result from a change in container design. Many times even a small modification can mean a big improvement in package efficiency.

If you think a design change—large or small—could help your package do a better job, Armstrong can be of service. For details, just get in touch with your nearest Armstrong office or write Armstrong Cork Company, Glass and Closure Division, 5401
Crystal Street, Lancaster, Pennsylvania.

RE-DESIGNED BOTTLE

benefits packer, dealer, and consumer



This handsome, masculine-looking bottle was the answer. Its broad base and compact shape give it stability on the filling line and make it easier to display, to use, and to store in the family medicine cabinet. The brand name in raised letters on opposite sides of the bottle becomes a handy non-slip grip.

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Packaging peeled potatoes

QUESTION: We are interested in the pre-packaging of peeled potatoes in consumer-sized packages. We have been considering using trays overwrapped with cellophane and perforrating the cellophane, as is done with many types of produce.

We would like to have the benefit of your opinion on whether this type of package would satisfactorily hold peeled potatoes in storage and handling.

ANSWER: Peeled potatoes have packaging requirements that are different from other types of produce such as leafy vegetables, tomatoes, etc.

Some of the problems in connection with the packaging of peeled potatoes and the type of package one company has found successful in this field are described in an article entitled "No More KP?" which appeared in Modern Packaging, Feb., 1950, p. 107.

It was found necessary by that firm to treat the potatoes to prevent them from darkening in storage and also to hold the packaged potatoes in cool storage.

The package used in that instance was a polyethylene bag, either alone or in combination with a kraft outer bag.

In view of this evidence, it is doubtful that a ventilated cellophane wrapper would successfully protect the peeled potatoes through the normal distribution channels, even if cool storage were used.

Sealing polyethylene-coated paper

QUESTION: We want to seal a polyethylene-coated paper to the uncoated back of the paper to make a strong seal. The paper is rather soft and porous, and the seals are not uniform or strong. Can we apply a narrow strip of coating to the back so the seal will be stronger and easier to make? Your suggestions and advice on this matter will be greatly appreciated.

ANSWER: There are polyethylene resin emulsions and dispersions on the market that could be used to precoat the sealing area on the back of the coated paper. However, these compounds will require a special coating or stripping unit for application and they must be dried or fused before the heat-sealing operation can be performed. This could mean a rather complex operation which should be done on your package-forming machine before the paper goes into the heat sealer.

The same result might be obtained with certain hot melts or resins other than polyethylene. If a hot melt could be used, the applicator would be very simple and no drying would be necessary.

It is suggested that you contact some of the makers of hot-melt adhesives and try the compounds they recommend to see which one best suits your requirements.

An alternate solution would be to make a resin-to-resin heat seal with your coated paper and then fold this seal back and paste it down. This is a simple operation that can be done at good speeds and the result is a strong, smooth seal that can be made with the minimum amount of polyethylene coating.

Color coding glass-packed product

QUESTION: We are confronted with the problem of using caps of various colors to identify our product, which is in a glass container, as to the date on which it was packed.

We are considering the possibility

of using a given identifying color in a period of time so that our salesmen can readily identify age of the merchandise as it stands on the shelves.

We think that this would prove a more rapid and positive means of identification than the conventional method used by most manufacturers of glass-packed products of code marking their labels.

We would like to apply the identifying color markings right in our plant by some simple means, but this appears to be a difficult problem. Can you suggest any other ways of accomplishing this result?

ANSWER: The idea of using color identification for code marking your packages as to the time they were packed would appear to have merit for rapid identification. However, it will be very difficult for you to attempt to apply colored enamels or coatings to the caps on a glass container without having to purchase some rather expensive equipment.

One means of accomplishing this would be to apply a colored spot label to the cap and this could be done by the simple addition of a top labeler in your production line. Such a label would not come down over the edges of the cap and therefore would not be visible at a glance to your salesmen as they were checking stocks on the shelves.

It might be more practical for you to use a colored band or area on your container labels and use these labels in a given period of time, then switch to labels of another color. This colored band or circle could be worked into the design of the label and would mean that you would have to be careful of the quantities purchased and held in stock, but it should be a simple means of accomplishing the purpose you have in mind.

Cash in on your bottleneck with CEL-O-SEAL

"Bristol-Myers has always been highly packaging-conscious—you have to be, in a competitive business like ours. Recently we redesigned our Professional Size bottle of Vitalis, using a crisplooking Du Pont 'Cel-O-Seal' band. Out only a

short time, the new package is getting much favorable comment. This gratifying reaction to our laboratory-sealed bottle is showing up on our sales chart -the best evidence that improved packaging pays off!"

Says Mr. J. W. Brooks **Vice President Bristol-Myers Products Division**





Eye-catching "Cel-O-Seal" bands will work for your product, too! They hold closures tight, guard against tampering and spillage, inspire consumer confidence. And a "Cel-O-Seal" band on the neck of your bottle is a sure way of getting across your sales message or slogan.

FREE PACKAGING SERVICE: See for yourself what "Cel-O-Seal" can do for your package. Send us a labeled dummy bottle. Our package experts will band it, return it for your inspection. No obligation, of course. Write: E. I. du Pont de Nemours & Co. (Inc.), "Cel-O-Seal" Section, 9529 Nemours Building, Wilmington 98, Delaware.

"Cel-O-Seal" cellulose bands are also sold by Armstrong Cork Co., Lancaster, Pa., and on the West Coast by I. F. Schnier Co., San Francisco, Calif.

DU PONT CEL-O-SEAL BANDS



... THROUGH CHEMISTRY

Equipment and materials

A NEW TUBE-FILLING MACHINE

for tooth paste, shaving cream, cosmetics, penicillin, paints, food pastes, mayonnaise, etc., introduced by the Arenco Machine Co., 25 W. 43 St., New York 36, incorporates the best features of the former Arenco filler and includes several im-

provements, according to the company.

Advantages claimed for the new Type GAB tube filler are: considerably reduced change-over time, improved cap-tightening device, built-in blow-off device and adaptability to practically any type of closure. Identification marks can be stamped on top of the closure. The machine is built with size and height of pump covering the tube dimensions specified by the customer. When required, it can be adapted for a maximum tube diameter of 1½ in. and a maximum cylindrical length of 8 in. Standard paste container holding 10 gal. is fitted with the machine. Output of the filler is 2,400 to 3,000 tubes per hr. Only one attendent is required to operate the filler.

A NEW CELLOPHANE SHEETER AND STACKER

announced by the Peters Machinery Co., 4700 Ravenswood Ave., Chicago 40, automatically cuts and stacks cellophane sheets for medium and small wrapping operations, permitting



retailers and wholesalers to handle their own wrapping jobs at substantial savings, the manufacturer reports. The machine cuts cellophane and other lightweight paper from rolls into sheets and stacks the sheets as they are cut to length. Its flexibility permits plants to wrap a wide variety of products such as meat, confections, produce, specialty drug items, dry goods, hardware and appliances. Exact size ad-

justments are reported to be quick and simple. Electric-eye control is available for accurate cutting of printed cellophane. Labor time and costs are said by the manufacturer to be held to a minimum with this equipment, in addition to savings of 15 to 30% which it is possible to obtain through purchase of rolls rather than cut-to-size sheets.

ECONOMICAL WEIGHING AND PRE-PACKAGING

of fresh fruits and vegetables is claimed for the new Pak-Weigher scale produced by the Tri-Pak Machinery Service,



Inc., Harlingen, Tex. Carrots, beets, turnips, radishes, oranges, lemons, limes, onions and other like items can be packed in bags or boxes in exact weight rather than "more than," which means substantial savings in a volume operation. The machine can be used either by packers or grocers, is simple

in design, easy to use and low in cost, according to the manufacturer. It may also be used in weighing and packaging hardware items such as nails, nuts and bolts.

AN AUTOMATIC ICE-CREAM-CARTON IMPRINTER

available from the Peerless Roll Leaf Co., Inc., Union City, N. J., imprints ice-cream flavors on standard carton blanks as they are needed in ice-cream filling and packaging operations. Imprints may be made in one or several positions on all sizes of flat and folded cartons. Imprints are made with Peerless im-



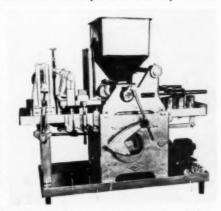
foils right printing through the wax surface and into the underlying fibre stock, according to the supplier. No drying time or de-waxing is necessary. Clear, cleancut foil imprints that match the colors and type of the standard carton are said not to smear or rub off. An average employee, the manufacturer reports, can be quickly trained to operate the machine and turn out up to 100 cartons per minute, ready

for immediate use. By flavor imprinting the cartons as needed, users avoid over or under buying; standard cartons without flavor imprint can be purchased in large, economical quantities and imprinted as required by production schedules. The machine is mounted on casters for maneuverability. It occupies about 6 sq. ft. of floor space and weighs about 800 lbs.

AN AUTOMATIC TWO-LINE FILLING MACHINE

developed by the Filler Machine Co., Inc., Philmont Club Station, Pa., fills half-pint, pint, quart and gallon cans with paint, oil, chemicals and similar viscous products, then dispenses lids

and presses them firmly in place on the containers. Containers move only a minimum amount, as they do not have to be raised or lowered for filling, the capping and pressing operation. Production speed is from



20 to 50 cans per min. Only one operator is necessary and the unit is reported to save considerable time and labor, since cleaning and change-over from one size of container to another or from one product to another can be made in only a few minutes. All contact parts are of bronze, but stainless steel can be supplied if corrosion resistance is re-



...wrappers with BAKELITE Polyethylene added

Products of *all* kinds move off shelves fast when wrappers look brighter, fresher, more colorful!

Blending Bakelite Polyethylene Resins with wrapper waxes gives this effect through higher gloss, which intensifies colors. In addition, texture is improved . . . tensile strength increased. Wrappers seal better . . . have greater scuff and blocking resistance . . . withstand cracking at low temperatures. And food is safe—Bakelite Polyethylene is inert, can be relatively odorless and tasteless!

This is just one use of versatile Bakelite Polyethylene. As a resin coating, this outstanding material can also be applied to cloth and metal. It can be calendered to make sheeting and film, molded and extruded. Bakelite Polyethylene.

ethylene comes in a wide range of colors. It's tough, flexible through temperature extremes, highly resistant to chemicals, water, oil and grease.

Why not investigate BAKELITE Polyethylene in terms of *your* product? Get full information on uses and properties by writing Dept. SP-55.

BAKELITE Polyethylene

BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation 130 East 42nd Street, New York 17, N.Y.

Make these wonderful tear-resistant cellophane bags and eight other styles automatically



Packagers and retailers hail the improved film bags made on the Renka Bag Machine. A fine cord within the foldover top of Renka-made bags gives them extra-strength, extra tearresistance.

> Higher packaging speeds less careful handling is needed

Better retail appearance

product can be removed and replaced time after time without tearing bag

The Renka makes bags from cellophane, film and paper, at speeds from 10,000 to 40,000 per hour, depending on size. The size range of the bags it produces is from 2" to 22½" in length, and from 3" to 13" in width. Maximum length is smaller than maximum width because the

than maximum width because the bags are made from the width, not the length of the roll.

A compact machine which can rapidly be changed from one bag size to another, the Renka also makes other styles of bags:

- 1. Ant bogs with folded tops
- 2. bags with rounded flaps
- 3. bags with flaps and foldover tops
- paper-backed bags with reinforced tops on the film side
- 5. tobacco pouches
- 7. paper bags with transparent
- bags without folds or flaps



RENKA

An interesting folder and sample bags will be sent to you on request. Write for them today!

G. van der Meulen & Zn. N. V. Prins Hendrikkade 173 Amsterdam, Holland

Equipment and materials

quired. Hopper capacity of the filler is 33 gal. The machine is 72% in. long, 38% in. wide and 66% to 72% in. in height.

A NEW WRAPPING MACHINE

that will handle circular or square pieces of candy or material of a similar nature of reasonable firmness up to 1 in. in diameter and 5 in, in length has been announced by the Masco Products Co., 2119 Sepulveda Blvd., Los Angeles 25, Calif. This new Model #440 wrapper operates with a medium-weight paper-backed foil and handles up to 90 pieces per minute. To operate, pieces to be wrapped are placed on a moving belt which positions them for automatic pick-up which, in turn, is



synchronized with the foil cut-off. Foil is automatically fed from a roll and cut off length. to

Cut foil meets the piece in proper synchronization between the wrapping rolls and wraps the piece under constant pressure. Ends of the foil are folded over or twisted. Wrapped pieces are fed out in a uniform manner where they may be picked up by conveyor belt or deposited for hand or automatic boxing. The machine is compact, requiring a table space of only 15 by 50 in. Its height is 16 in. and it weighs less than 100 lbs.

A NEW COATING-RELEASE PRODUCT

being offered by the Potdevin Machine Co., 285 North St., Teterboro, N. J., is designed to prevent adhesives, lacquers, resins, paints or other coating materials from adhering to the walls of pots, tanks, rollers, shafts, feed tables and other exposed surfaces. Tests are reported to show that this new product, called "Release-Cote," reduces clean-up time by at least 50%, thus minimizing down time. Before a machine is filled with adhesive, a film of the release agent is applied to exposed surfaces (except applicator rollers) simply with a brush, rag, sponge or spray equipment; coated areas can be quickly cleaned with warm water or simple water rinse. Release Cote is supplied in quarts, gallons and 5-gal. drums.

A NEW PORTABLE TAPE DISPENSER

that moistens and applies any type of gummed tape directly to cartons or bundles has been announced by the Roll-On-Sealer Co., Antioch, Ill. This low-cost sealer which weighs only 2% lbs.,

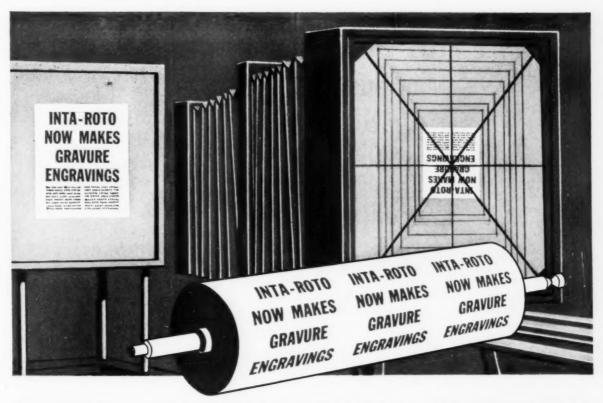
is designed with no gears, ratchets, motor or intricate mechanism and is easy to operate. A self-raising cover simplifies loading; closing the cover automatically threads the tape. The dispenser is equipped with an adjustable guide for tapes up to 3 in. in width. It has a serrated cutting blade and rubber pres-



sure roller. Tape is automatically measured as it is applied to the carton or package without the need for measuring or setting of dials.

A NEW REINFORCED SEALING TAPE

introduced under the tradename of "Glaret" De Luxe by General Gummed Products, Inc., 126-15 89 Ave., Richmond Hill 18, Long Island, N. Y., is reinforced with uniformly spaced,



INTA-ROTO NOW MAKES GRAVURE ENGRAVINGS

Albert H. Merz, President of the Inta-Roto Machine Co. in Richmond, Va., announces the opening of a new rotogravure engraving service, the Inta-Roto Engraving Corporation. The company occupies a new, completely air conditioned modern building conveniently adjacent to the Inta-Roto Machine Co., where gravure base cylinders and converting machines are manufactured. The engraving plant has facilities for copper plating, engraving, chrome plating, and proofing cylinders. The most modern equipment in cameras and step and repeat machines have been installed.

Mr. Merz will also serve as president of the new engraving company. In addition, other skilled craftsmen who are well known in the profession assure precision engravings. The Inta-Roto Engraving Corporation will be completely staffed and equipped to produce engravings that will meet the most rigid standards of production men and art directors.

Inquiries by mail or telephone are cordially invited.

Inta-Roto MACHINE Co.

to see demonstrations of their newest

GM 1000 CARDBOARD LAMINATOR

any time during the entire month of January.



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"I like the 'PLUS' features



CODING HOLE PUNCHING COMPRESSION SEALING FOLDING

You're years ahead with the extra features found only in Doughboy's "AT" Rotary Heat Sealer. Besides unparalleled speed (up to 900 inches per minute), the "AT" offers foolproof devices for easy handling of difficult code-dating, hole punching, compression sealing and bag folding jobs. In addition, its standard tilting device permits quick adaptation for prefabricating bags or barriers.

Other DOUGHBOY Heat Sealers include the Continuous Band Sealer (CBS), which features air cooling, and the versatile Power Hand Sealer (PHS), the portable rotary sealer that solved the "skipping" problem.

They're super-sealed by DOUGHBOY!



DOUGHBOY INDUSTRIES, INC.

MECHANICAL DIVISION . NEW RICHMOND, WISCONSIN

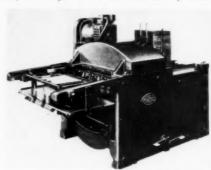
Equipment and materials

extra-strong glass fibres and laminated with a non-asphaltic water- and heat-resistant adhesive. Absence of asphalt makes for a thinner and more pliable tape, eliminates bleeding, clogging up of tape-dispenser knives and softening of laminant in hot weather, according to the producer. This new tape may be used on all types of heavy packages.

A NEW AUTOMATIC CUTTER AND CREASER

for all types of single- or double-faced corrugated or solid fibre materials from 0.025 to 0.120 in. thick has been announced by the Post Machinery Co., Dept. A, 150 Elliott St., Beverly, Mass.

The machine is reported to operate on a new, simple, long-wearing principle which features a rollquading rant, permitting extraheavy stock to be cut without deflection. The



unit, known as the Thrissell press, is available in 30-by-22-in, and 40-by-30-in, sizes. The supplier reports that the machine operates at speeds up to 3,600 impressions per hr.

A NEW MODEL SANDWICH WRAPPING MACHINE

reported to wrap multiple-unit packages of round or square sandwiches with speed and precision has been announced by the Lynch Corp., Packaging Machine Div., 3600 Summit St., Toledo 1, Ohio. New design features of this Model RS machine include compensation for normal irregularities in sandwich thickness and cutting scrap losses while still wrapping up to 100 multiple-unit packages per minute. The unit can be directly connected to spreader equipment. A simple change of wrapping heads adjusts the machine from round to square packaging. Optional equipment will allow the machine to accommodate packages from 1½ to 2 in, wide and from 1½ to 3 in, long.

NEWLY DESIGNED PLASTIC VIALS

that include several improvements have been developed by the Armstrong Cork Co., Glass and Closure Div., Liberty St., Lancaster, Pa. A new type of snap-on cap that fits flush permits



filling the product to the top of the vial. A tab on the cap makes the vial easy to open with one hand. The cap snaps over the lip of the vial, giving a double seal for extra protection. The reinforced lip is said to resist chipping and breakage, and it will not warp. Outside surface of the vial is specially treated to make labels stick easily. Recessed

base of the vial fits the domed cap for easy stacking. The manufacturer reports that extensive field tests show that pharmacists

packaging news...



Acme Paints has attained excellent consumer recognition for their insecticide, 6% Chlordane Dust, packaged in this red, yellow and blue paper canister produced by Harcord. Response indicates stronger trade and consumer acceptance of this colorful package—a perfect eye stopper on the counter or shelf.

by HARCORD



Dealer interest hit a new high with the repackaging by Copper Clad Products Inc. of Samae, miracle cleanser for copper ware. Harcord's scientifically designed paper can ister affords moisture protection to the contents. Competitively priced packaging helps sell good merchandise.



A modern and distinctive package, this grey-striped paper canister for Philip A. Hunt's Acid Hardener reflects the quality product it contains. The general customer reaction to this attractive canister, produced by Harcord, has been extremely gratifying in terms of sales.



Synklor-50-W, an all-round insecticide popular with home gardeners over the nation, is made by U. S. Rubber Co., Naugatuck Chemical Division, and packaged in a bright yellow canister imprinted in blue. The use of paper canister packaging by Harcord has played a part in its success.

HARCORD MANUFACTURING CO., INC., PAPER CANISTERS 125 Monitor St., Dept. MP-1, Jersey City, N. J. - N. Y. Phone: BArclay 7-5685



Equipment and materials

favor this new low-cost container for the packaging of lowpriced items. Stocks of the new vials are available for immediate shipment.

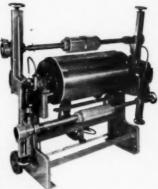
NEW WINDER AND UNWINDER EQUIPMENT

recently developed by the Dilts Machine Works, Div. of Black-Clawson Co., Fulton, N. Y., for continuous winding of rolls and continuous roll changes affords continuous operation with



Model SSW winder (left) and the Ferrisplice unwinder (below) are designed principally for use on bag machinery, printing presses and other processes running glassine, acetate or cellophane materials.

constant control. The two pieces of equipment are designed principally for use on bag machinery, printing presses and other processes running glassine, acetate or cellophane. Both units are available in standard models for web widths from 20 to 40 in. Continuous roll changes made on the "Ferrisplice Unwinder" are reported to reduce down time and increase operating efficiency and produc-



tion. Roll changes at speeds over 400 FPM are made without loss of registration, according to the company. Model FSU-A Ferrisplice handles rolls ranging from 9 to 24 in. O.D.; Model FSU-B, from 6 to 18 in. O.D. Maximum roll weight is 500 lbs. The "Surfastart Continuous Winder" saves time by continuous winding of rolls of glassine, cellophane and acetate without stopping to change cores. Accurate rolls with straight edges are wound and in most cases starting of the new roll is done at full operating speed, the supplier states. The Model SSW provides continuous winding of rolls on cores of 3-in. I.D. and larger. Rolls up to 500 lbs. can be wound to diameters of 6 to 24 in.

GERMAN-MADE PAVEMA FLEXOGRAPHIC PRESSES

are now available through the Wolverine Paper Converting Machinery Corp., 18,584 Fitzpatrick Ave., Detroit 28, Mich., exclusive representative for these machines in the United States and Canada. These three-color presses print either three colors on one side, or two colors on one side and one on the reverse side. They are equipped with a patented sheet cutter producing a fully printed sheet from roll to sheet. These machines, made by a well-known West German paper-converting machine manufacturer, are widely used in various types of printing and paper-converting industries. The first machine to be imported will be of a size 11 in. wide and 19% in. repeat, producing a product printed on both sides at a speed up to 15,000 per min-



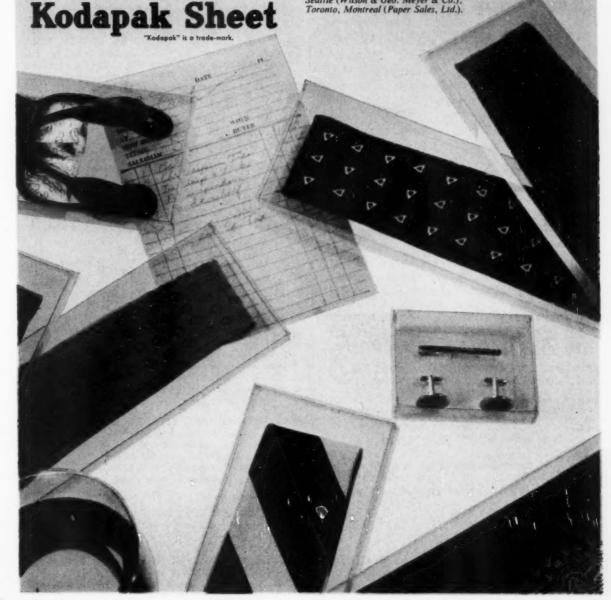
Here's fine haberdashery that has the "Million-Dollar Look" ... the magic of packaging in crystal-clear Kodapak Sheet ... that gives any fine merchandise that fresh new look on counters and shelves ... that produces profit-building sales volume day after day.

The secret of this magic is Kodapak Sheet's brilliant transparency... its freedom from distracting bubbles and surface defects. Of vital importance to the boxmaker, too, is Kodapak Sheet's gauge uniformity... resulting in greater production economy, fewer rejects, and easier handling.

For further information, including technical data and names of specializing firms, consult our representative or write:

Cellulose Products Division Eastman Kodak Company, Rochester 4, New York

Sales offices: New York, Chicago, Dallas.
Sales representatives: Cleveland, Philadelphia, Providence.
Distributors: San Francisco, Los Angeles, Portland,
Seattle (Wilson & Geo. Meyer & Co.):
Toronto, Montreal (Paper Sales, Ltd.).





EVEN THE RICH CAN'T AFFORD OVER-WEIGHTS!

Today's profit margin is too thin to permit overweights. Efficient packaging lines demand accuracy with their high speed weighing and filling. That's why manufacturers are changing to Hy-Tra-Lec weighing systems.

Hy-Tra-Lec is that amazingly accurate method of weighing. And with Hy-Tra-Lec, you get more than just an isolated weigher or weighers. You get a system, engineered for your particular operation; complete, if desired, with conveyors; integrated with other phases of your production-packaging line to permit efficient, dependable operation with minimum use of floor space.

Look ahead to more accurate, less expensive weighing and filling. Without obligation, get a Wright study and recommendation.

WRIGHT MACHINERY

ESTABLISHED 1893 - DURHAM, NORTH CAROLINA SUBSIDIARY OF THE SPERRY CORPORATION



Wright Machinery Company: Calvin Street, Durham, N. C.; 921 Bergen Avenue, Jersey City, N. J.; Michigan Square Building, 549 N. Michigan Avenue, Chicago, Illinois. Edwin F. DeLine Company, 224 W. Alameda Avenue, Denver 9, Colorado. R. P. Anderson Company: 1122 Texas Bank Building, Dallas 2, Texas; 5493 Overbrook Lane, Houston 19, Texas; 925 N. Solomon Pl., New Orleans 19, La.

WRIGHT MAC	CHINERY COMPANY
ing systems.	Durham, North Carolina rature on your Hy-Tra-Lec weigh-
TITLE	
COMPANY	
ADDRESS	
CITY & STATE	

Equipment and materials

ute. The presses, which will be marketed under the name "Wolverine Pavema," are built to American standards and specifications and will be serviced entirely by Wolverine.

A NEW POWER WRAPPER AND AD IMPRINTER

known as the "Jetvertiser" wraps packages at the same time that it imprints an advertising message. Introduced by J. J.



Connolly, Inc., 457 W. 40 St., New York 18, the machine is guaranteed by the company to save time, labor and material costs. Shipping and wrapping departments of industrial firms, companies engaged in volume pre-wrapping service as well as laundries, bakeries, cleaners and dyers, confectioners and

other retailers, the company states, will find the machine useful. Based on extensive tests, the company estimates that the machine saves about 33\% of labor cost and 25\% of material cost due to paper waste. It furnishes a neat, effective package providing advertising that comes directly to the consumer.

TWO LINES OF REINFORCED WATERPROOF PAPERS recently introduced by the Stocker Mfg. Co., Netcong, N. J., are reported to offer superior performance because of a patented method of reinforcing with Fiberglas that is said to assure an absolutely uniform sheet as a result of the exact pattern reinforcements. The Champion line includes Glaspun Heavyweight No. 488, Glaspun Middleweight No. 465, Glaspun Creped Middleweight No. 466, Glaspun Scuf-Champ No. 467 and Glaspun Welterweight No. 443. The Utility line includes Glaspun No. 411 and Glaspun No. 422. Rolls are available in seven standard sizes.

A NEW CAN DOUBLE-SEAM PROJECTOR

for seam quality control is being offered by the Wilkens-Anderson Co., 4525 W. Division St., Chicago 51. The unit gives a 4-in.-long image of the cross-section of a 0.1-in. double seam that can be viewed simultaneously by several persons through the top opening of the projector, independent of factory lighting conditions. Seam cross-sections are easily cut on the new slitting saw and end-panel cutter offered by the company. Measurements in $\frac{1}{11,000}$ ths of an inch of body and cover hook lengths can then be obtained. Percentage overlap and butting are read directly from a Nomograph card.

POLYETHYLENE PRICE REDUCTIONS

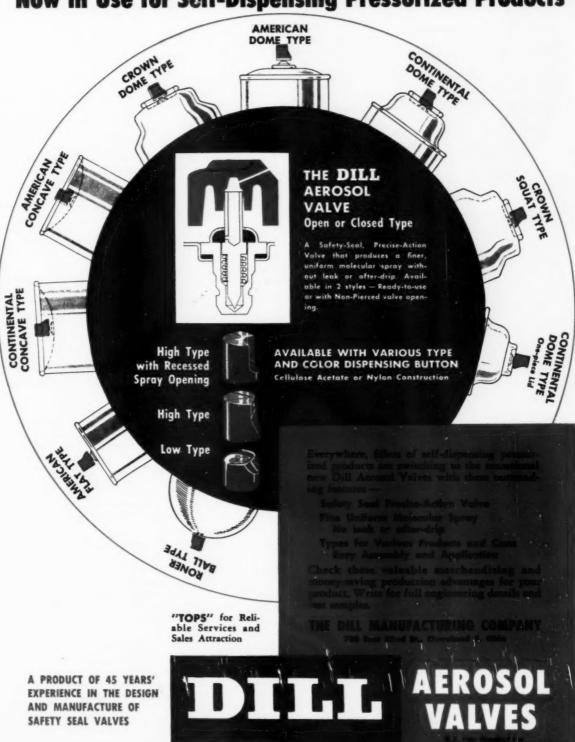
of 3 cents a pound have recently been announced. Alathon polyethylene resins for molding and extrusions, according to E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del., are now 46 cents a pound. Visking Corp., Terre Haute, Ind., has reduced all its Vis-Queen polyethylene films 3 cents a pound.

A NEW AUTOMATIC WEIGHING SYSTAM

that is reported to eliminate even the smallest overages and underages has been developed by the Richardson Scale Co., Van Houten Ave., Clifton, N. J. Based on an advanced type of instrumentation, the system also is said to permit finer process control in weighing and filling operations. In this new system, a drum, can, cylinder or box is automatically tared, then filled

FITS ALL TYPE CAN LIDS

Now in Use for Self-Dispensing Pressurized Products





WE'RE MAKING A LONG STORY Short!

We've capsuled a book full of facts on industrial uses for Crystal Tissues and put them down for you in this illustrated, fast-reading folder. It's free, of course.

And it's the best way we know to give you a quick picture of the many successful applications for tissues in industry—to show you how tissue can be used in the product, in product packaging materials, and in the wrapping and packaging of countless products that range all the way from hats to hardware.

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NAME	rns to lissue" by refur	n mail.

Equipment and materials

with product until a selected weight is reached. Precise weight of product in the container is then recorded or printed for permanent record. The system is particularly recommended for handling petroleum, dairy, food or chemical products—any liquid or solid product where good quality control is desired and where savings of a few ounces or pounds mount to considerable sums over a given time.

A NEWLY DEVELOPED BOX STITCHER



available in five different typesthe post, arm, combination post and arm, side seam and top-is reported by Acme Steel Co., 2840 Archer Ave., Chicago, maker of the machine, to enable all types of corrugated and solid fibre boxes to be stitched quickly and securely at low cost. Heavy-duty work as well as light stitching jobs can be handled by the machine. A small hand lever adjusts it to handle thicknesses from 1/16 to % in. This versatility makes it possible to use the machine in special tacking and carding operations also. Acme's new arcuate-wire stitching method is used in the machine. In operation, the stitcher draws flat wire from a coil, puts an arc in the wire, cuts it to proper length, forms it into a stitch, drives the stitch through the material and clinches it. Machine mechanism is simple and is readily accessible for maintenance.

METAL PREPARATIONS FOR SCREEN PRINTING

on glass and ceramics, announced by the Ceramic Division of Hanovia Chemical & Mfg. Co., a member of the Engelhard Industries, East Newark, N. J., are reported to incorporate technological advances in brightness. Cited as examples of the new technique are 22-carat gold-decorated decanters. These decorations are reported to fire out with a gold mirror finish and retain their original brilliance indefinitely. The metal film is fused to the glass and resists abrasion.

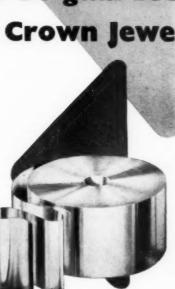
WATER-RESISTANT POLYVINYL ACETATE EMULSION known as Resyn 10K-25, available from the Resin Division of National Starch Products, Inc., 270 Madison Ave., New York 16, is reported by the company to possess greater water resistance than other standard emulsions of this type. The new emulsion is said to exhibit dried-out films of outstanding water resistance, toughness and gloss.

MASS PRODUCTION OF PRESSURE CANS

for virtually any type of product that sprays, mists or foams has been announced by the American Can Co., 100 Park Ave., New York 17, which recently completed expansion of its can-making equipment for cans with profiles to handle virtually all the popular pressure-container valves now on the market. Canco's pressure container presently is available in two diameters, the 202 and the 211. The most frequently used sizes at present, the firm states, are the 6 oz. (202 x 406) and the 12 oz. (211 x 413).

Against the grey stones blaze the Tudor uniforms of the Yeoman Warders of Her Majesty's Tower of London. Among their duties is the guardianship of the Crown Jewels, normally kept in the Wakefield Tower.

Something to be guarded like Crown Jewels...



With food, candy, tobacco, the flavour and freshness of the product is its reputation. Something to be guarded like Crown Jewels! Venesta aluminium foil guards that reputation. While it keeps the good flavour in, it keeps harm out, and its brightness helps sell as no other wrapping can. Years of experience go into the manufacture of Venesta aluminium foil. Made under conditions of the strictest hygiene, and quality-controlled for purity, gauge and printing, it is dependable protection that matches the needs of the highest quality products.

VENESTA ALUMINIUM FOIL

A PRODUCT OF THE PACKAGING DIVISION



Venesta Limited, Vintry House, Queen Street Place, London, E.C.4, England. Cables · Venesta · London

Plants and people

The Dobeckmun Co., Cleveland, Ohio, has completed arrangements to acquire the Floyd A. Holes Co., Bedford, Ohio. The purchase price is approximately \$275,000 and involves an exchange of stock. The Holes company was formed about 10 years ago, with operations confined principally to laminating and coat-

ing flexible materials. Dobeckmun's growing demand for such materials prompted the purchase of Holes. Holes plants in Bedford and Madison, Ohio, will continue operations without interruption, with present management retained, according to the Mr. Bracken Dobeckmun announcement.



The West Coast Div. of Dobeckmun has promoted Robert O. Bracken to district sales manager of its Portland office. Mr. Bracken will be assisted by Hack Robins, formerly in the Berkeley office.

Bradley Dewey has announced the formation of Bradley Container Corp., Maynard, Mass., of which he will be president, to manufacture and market plastic tubes and bottles made by a newly developed European process for which the company has exclusive U.S. and Canadian patent rights. More than 150,000 sq. ft. of space have been rented from Maynard Industries, Inc., and operations are expected to begin upon completion of improvements in the property and the installation of equipment. Mr. Dewey retired last year as president of Dewey & Almy Chemical Co.

Raymond G. Hathorn has been elected president of the Minerva Wax Paper Co., Minerva, Ohio, converters, laminators and printers of papers, films and foils. He succeeds A. F. Gluck, who is retiring. Mr. Hathorn will remain as board chairman.



Mr. Hathorn

The New Haven Pulp & Board Co., New Haven, Conn., has changed its name to The New Haven Board & Carton Co. The new name, selected from a number of names suggested, was presented at a special stockholder's meeting for final approval. There are no other changes within the company, which will continue under the same management and ownership.

The Union Paste Co., Hyde Park, Mass., has appointed C. Russell Davis as technical advisor to the Customer Service

Dept. Mr. Davis will spend his time in the field and also will conduct research on new products.

William W. Fitzhugh, Inc., New York, manufacturer of folding boxes, labels, corrugated cases and paper specialties, has acquired larger quarters in Brooklyn for its Envelope & Specialties Div.

Riegel Paper Corp., New York, has appointed C. W. Hoffman assistant manager of converted glassine sales.

Riegel has opened a district sales office in San Francisco at 400 Montgomery St., with Jerry Hastaba in charge,

Bernard H. Schenk has been appointed president of Visking, Ltd., Canadian

of Visking subsidiary Corp., Chicago. J. Paul Smith, president of the parent company, has been made board chairman of the Canadian subsidiary, Mr. Schenk will also serve as a director of Visking's international subsidiaries and affiliates.



Radiant Color Co., Oakland, Calif., manufacturer of fluorescent papers and colors, has appointed the Chicago Cardboard Co., Chicago, to produce and handle national distribution of Velva-Glo fluorescent cardboards in 0.028- and 0.050-pt. weights.

St. Regis Paper Co., New York, has appointed Arch Carswell to the newly created position of vice president in charge of sales of all products of the company.

Container Laboratories, Inc., Chicago, has appointed Gordon S. Mustin to its engineering office in Washington, D. C. Other new Washington employees are James S. Hardigg and Ray F. Gochnour. The Washington office is headed by Thomas P. Wharton, former chief of packaging for the Army General Staff.

Kimble Glass Co., subsidiary of Owens-Illinois Glass Co., Toledo, Ohio, and manufacturer of ampuls, vials and glass containers, has elected Fred D. Pinotti a vice president and member of the board.

Monsanto Chemical Co., Springfield, Mass., has announced the selection of Texas City, Tex., as the site for its first polyethylene production plant. Construction is now under way and commercial production is expected by the fourth quarter of 1953.

Sav-Way Sara Seal, Inc. (formerly Sav-Way Industries), Detroit, Mich., has sold its interests in the Sav-Way Sara Sealer to Packaging Industries Ltd., Inc., Montclair, N. J. The Sara Sealer, a band-type heat sealer, will be manufactured and sold in the future by Packaging Industries. The new line will be given the trade name Sentinel, the same trade name used by Packaging Industries for its bartype heat sealers.

Niagara Packaging Machinery Corp., has purchased the E&R Machine Co., Hamburg, N. Y., and has moved to larger quarters at 28 St. Mary St., Depew, N. Y.

Sun Chemical Corp., Long Island City, N. Y., has appointed George F. Finnie director of advertising and made him a member of the firm's management com-

A. H. Solberg has been appointed sales manager of the Geo. H. Morrill Co., a division of Sun Chemical. Mr. Solberg also continues as Midwest manager.

Polymer Industries, Inc., Astoria, Long Island, N. Y., manufacturer of industrial adhesives and textile chemicals and finishes, plans to construct a modern plant in Stamford, Conn.

Hercules Powder Co., Inc., Wilmington, Del., has established a new sales office for its Synthetics Dept. in the Rhodes Haverty Bldg., 134 Peachtree St., Atlanta, Ga. The new office will operate as a sub-office of the Wilmington district with John F. Copeland as manager and Charles S. Huhn as technical sales representative. It will serve Florida, Georgia, North and South Carolina, and part of Tennessee and Alabama.

Atlantic Coffee Bag Co., Inc., Brooklyn, has appointed the Hart Co., Clearwater, Fla., as its Florida representative for the sale of coffee and other specialty bags.

Dr. Robert B. Hobbs has been appointed chief of the paper section of the National Bureau of Standards, Washington, D. C.

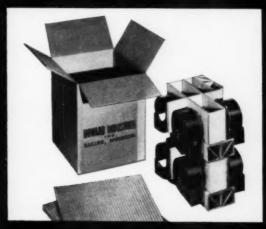
Cabrun Ink Products Corp., Philadelphia, is the new name of the printing-ink firm formerly known as Coronet Products Corp. Officers of the firm are the same.

Robert Gair Co., Inc., New York, has appointed Homer G. Murphy as Chicago plant sales manager of its American Coating Mills Div. John H. Fettinger, Sr., has been made assistant manager of Gair's Thames River (Conn.) Div. Fred

FAST



SURE



EASY



Do you know the five commonly used methods of sealing boxes? Write for your copy of booklet, "How to Seal Corrugated Shipping Boxes."



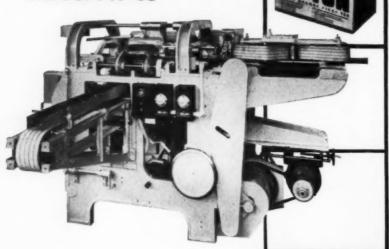
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HINDE & DAUCH

Authority on Packaging

SANDUSKY 4, OHIO . 17 FACTORIES AND MILLS . 40 SALES OFFICES

The Battle Creek Model FW-35



low cost answer to medium size package wrapping problems

The Battle Creek Model FW-35 is especially designed to wrap medium size packages at speeds up to 100 packages per minute, without the services of an operator. Its fully automatic operation plus its low initial cost affords you unusual savings. The quick changeover from one package size to another permits the machine to do the work of two or more machines! The Battle Creek Model FW-35 is versatile too. An intermittent stream of cartons can be fed from a previous packing conveyor without an operator. Boats, trays or cartons of various shapes and sizes are no problem for the Battle Creek Model FW-35. You get all this speed and versatility PLUS the smooth handling of the Battle Creek "Continuous Flow" principle, which eliminates frequent down time caused by sudden stops, starts and jerks. Write for complete information.



BATTLE CREEK BREAD WRAPPING MACHINE COMPANY Battle Creek, Michigan

Plants and people

W. Schoch has been appointed Elkhart, Ind., plant sales manager, American Coating Mills Div.

Wolverine Paper Converting Machinery Corp., and Nasko Machinery Corp. have moved to new, enlarged quarters at 18,584 Fitzpatrick Ave., Detroit 28, Mich.

Permacel Tape Corp., New Brunswick, N. J., has promoted Albert A. Hally to







Mr. Bartle Mr. Fitzgerald

director of sales planning. Franklin W. Bartle has been named industrial advertising manager and George A. Fitzgerald is now industrial sales manager for the firm.

The first step in coordinating the activities of West Virginia Pulp & Paper Co., New York, and its new subsidiary, Hinde & Dauch Paper Co., Sandusky, Ohio, has been taken with the appointment of the following H & D directors to the West Virginia board: Sidney Frohman, chairman of the board of H & D; Charles E. Frohman, president of H & D; and George R. Birkelund, president of Baker, Fentress & Co., Chicago.

The Thatcher Glass Mfg. Co., Inc., Elmira, N. Y., has named Franklin B. Pollock chairman of the board and chief executive officer. F. K. Rodewald succeeds Mr. Pollock as president.

Thatcher has purchased 18 acres of land at Saugus, Calif., as the site for a new bottle-making factory. Production is scheduled for the first quarter of 1954.

River Raisin Paper Co., Monroe, Mich., has completed and placed in operation another new plant at Sharonville, Ohio.

Roy H. Smith has been made sales manager of the Chicago Carton Co., Chicago. Mr. Smith succeeds Harold H. Murphy, deceased.

A. R. Lillie has retired from the Folding Paper Box Assn. of America, Chicago, after serving the association for the past 18 years in a variety of positions. A. E. Murphy will succeed Mr. Lillie in han-









SCHRADER TRIPLE-TESTED VALVES MEAN LOWER REJECTION RATES

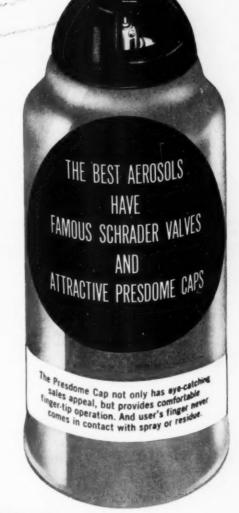
Aerosol loaders who have used vast numbers of Schrader Valves have found lower rejection rates, because Schrader Aerosol Valves receive the most thorough inspection. They're triple-tested . . . every critical component part 100% machine tested for correct tolerances. Low rejection rates mean lower costs. And the elimination of 'dud' returns from retailers protects the reputation of your product.

No Aerosol Product is Better than its Valve—No Valve is Better than Schrader's

Schrader produces Aerosol Valves with fully automatic machinery . . . maintaining complete control of production, because nothing but raw materials are bought outside. Schrader even makes its own metal closures.



- 1. Arrow points clearly to direction of spray
- 2. Flexible operating portion of Presdome is countersuni
- 3. Solid button recessed for valve pin
- 4. Valve pin designed for positive spray shutoff
- Solid plastic dome grips closure shoulder permanently
 —no slipping or turning
- 6. Famous Schrader seating principle is used in the valve
- 7. Caps available in various colors to match your label . . . by request
- 8. Special tamper-proof locking tab is available





AEROSOL VALVES made by the

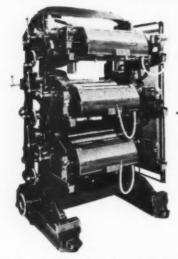
manufacturer of the Standard Tire Valve since the first Automobile

- - MAIL THIS COUPON TODAY

Use our research facilities to develop a superior Aerosol package. Send for samples and further information.

Division of Scovill Manufacturing Company, I 470 Vanderbilt Avenue, Brooklyn 38, IN. Y.		
Please send me Samples	☐ Brochure	☐ Price List
Name	Title	
Company		
Address		

A GOOD PRESS + GOOD PLATES = GOOD PRINTING



The POTDEVIN Flexographic Press

performs at its <u>best</u> with **MOSSTYPES***

...the pre-madeready rubber printing plates

The finest engines run at peak efficiency only with the right fuel. It's the same with flexographic printing equipment, too — for top-quality performance you have to team a precision-engineered press with precision-molded printing plates. That's why most leading makers check out their new presses with MOSSTYPES, the rubber plates you can always depend on for accuracy and uniformity.

Write for literature about MOSSTYPE Rubber Plates



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33 Flatbush Avenue - Brooklyn 17, N. Y

FREE ADHESIVES SERVICE

. . . for packaging materials laminators

- If your laminating production involves the bonding of any of the materials listed on the right . . . to themselves or to each other . . . let us show you how "BONDMASTER" adhesives have successfully solved such problems for other leading firms in your own field.
- Take advantage of over 40 years of leadership in the development and manufacture of industrial adhesives that are custom-built for the packaging industry. Write today for this FREE service—without cost or obligation of any kind!

Rubber & Asbestos Corp.

233 Belleville Avenue Bloomfield, New Jersey



Plants and people

dling traffic and stock box activities for the present. Other changes include: A. S. Lynch, director of accounting, will also assume charge of statistics; Dennis C. Triplett, formerly in the public relations department, will be in charge of industrial relations and safety; Anne McInerney has been made office manager and will continue as secretary to Mr. Murphy.

Perkins-Goodwin Co., New York, has elected Louis Calder, Jr., as executive vice president and Edward McSweeney as vice president and treasurer.



Photographed at the recent Canadian Packaging Exposition (l. to r.):
Carl E. Schaeffer, Silas E. Child and Walter E. Buswell of Stokes & Smith Co., Philadelphia, who together have a total of 130 years of service in the company.

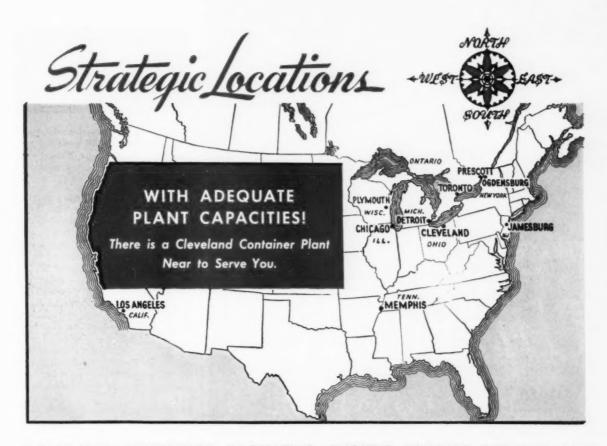
Executive and sales offices of the Andre Paper Box Co. are now located at 1355 Market St., San Francisco 3, Calif.

H. H. Heinrich Co., New York, has reopened its southern office in the Hotel Concord, St. Petersburg, Fla. Each year, from mid-November until April, the company opens a Florida office to serve southern converters.

The Sylvania Div., American Viscose Corp., Philadelphia, Pa., has appointed Harry G. Alwine as a sales representative in the Philadelphia area. Dwight H. Rollins has been transferred from Philadelphia to the New York sales office.

Peter A. Erickson has joined the sales staff of Central States Paper & Bag Co., St. Louis, Mo., and will be located in the Chicago office.

C. D. Alexander, former manager of the Indianapolis plant of Bemis Bro. Bag Co., St. Louis, Mo., has been given new duties at the general company level in connection with certain long-range studies the company is undertaking. He is succeeded by R. C. Van Horn, who was acting manager during Mr. Alexander's



CLEVELAND CONTAINER FACILITIES ENSURE PROMPT SERVICE AND DELIVERIES AT LOW CUSTOMER COST

Our complete line of containers offers the customer a wide choice in packaging. Cleveland Containers can be used for practically all dry products. They are of sturdy construction and can be furnished with special liners, colored spiral wraps or labels.

Our customers know that Cleveland Containers are efficient, economical and attractive. They enhance a good product through better packaging. This can be accomplished at low cost . . . with a container designed to fit your exact needs.

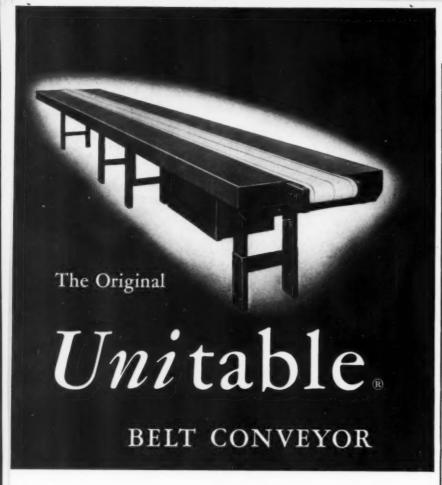
We offer you our long experience in packaging a wide variety of products.

WHY PAY MORE? . . . for the best, Call Cleveland!

Ask for folder on:

Plain All-Fibre Cans
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Metal End Slip-Cover Cans
Metal End Friction Plug Cans
Metal End Turn Sifter Top Cans
Metal End Screw Top Cans
Metal End Telescope Cases
Unit Pack Cans
Tubing, All Sizes & Lengths,





The MOST VERSATILE slider-bed belt conveyor on the market today. Over 4000 satisfied users say so.

The UNITABLE, with its integrated POWER PAC Drive, will save you money in initial cost, upkeep and performance. Full specifications upon request.

NEAR YOU is a distributor of SPECIALTY Belt Conveyors, Slat Conveyors, Gravity Conveyors, Press Conveyors, "Unitrough" Belt Conveyors, Unipac Handlers (Portable Pilers), Reciprocating Lifts and Complete Package Handling Systems.



Plants and people

recent illness. Mr. Alexander will remain in Indianapolis. J. V. Richards has been appointed manager of the Bemis Brooklyn plant, filling the vacancy created by the death of A. C. Ewer.

Swift & Co., Chicago, has appointed C. S. Young to head its general formulated adhesive products division. Mr.

Young joined Swift in 1933 and has held various positions in laboratory research and sales work.

H. A. Upton will be Pacific Coast sales manager for Swift, with headquarters in San Francisco. He will supervise sales of Swift adhesive plants and units on the West Coast and Ha-

waii. S. E. Carroll, Jr., who has been with the company for 20 years, has been appointed Los Angeles plant department

L. E. Grieve is manager of Swift's Adhesive Products Dept. recently opened in Dallas, Tex.

The Chase Bag Co., Chicago, has appointed James W. Jacoby as its technical service representative in Philadelphia.

The Crown Cork & Seal Co., Baltimore, Md., has appointed Marc E. Bell as closure sales representative. He will join G. R. Ludwig and D. W. Sangdahl in the Chicago office.

Equitable Paper Bag Co., Inc., Long Island City, N. Y., has expanded its paper shipping-sack sales division and has appointed Donald A. Levenson manager of shipping sack sales.

William Graham Firth, managing director of P. J. Firth Pty, Ltd., of Sydney, Australia, has been elected president of the Package Manufacturers Assn. of New South Wales.

Food Machinery & Chemical Corp., San Jose, Calif., has appointed William A. Wolff, formerly works manager of Simplex Packaging Machinery, Inc., as western operations manager of the company's John Bean Div. Mr. Wolff succeeds George Campbell Jones, who is now divisional assistant to the manager of FMC's Bolens Products Div.

Fulton Bag & Cotton Mills, Atlanta, Ga., has appointed Robert J. Gigler as West Coast sales manager for the Multiwall Paper Bag Div. Mr. Gigler will headquarter in Los Angeles. H. Vance Kindt

MODERN PACKAGING



27 Newport Ave., North Quincy 71, Mass.

Americans, it seems, are all washed up

America's production of soap and synthetic detergents in 1952 was up 22.5% over 1940. More impressive than this percentage of increase was the actual figure for total production in 1952—close to 4000 million pounds. Even for a country the size of ours, that's a lot of soap, however you figure it.

Almost all soaps reach retail outlets packed in corrugated containers because they provide ample protection at reasonable cost. A healthy proportion of these shipping cartons are fabricated by converters who use MEAD .009 Corrugating Medium, made of chestnut and other hardwood fibers, combined with MEAD Kraft Liner. The result is a strong and rigid product with an easy-on-the-budget cost.



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JANUARY 1954

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NEW YORK: 55 WEST 42 STREET

Plants and people

succeeds Mr. Gigler as director of northern California multiwall bag sales. Paul Bimmerman, Jr., has been appointed to the Los Angeles sales staff.

Completion of a new finishing plant in Atlanta has been announced by Fulton. The plant will double present finishing production capacity.

Hal M. Blackburn, Jr., has been appointed to the sales force of Fulton's New Orleans Div. Mr. Blackburn succeeds Stafford Benedict, who has been transferred to the sales department in Atlanta. Mr. Blackburn will headquarter in Memphis and will serve western Tennessee and northern Mississippi.

Hazel-Atlas Glass Co., Wheeling, W. Va., has appointed F. N. Peregoy superintendent of the company's Zanesville, Ohio, plant No. 2. Mr. Peregoy succeeds E. S. Greer, now production standards manager for the Quality Control Div.

Federal Tool Corp., Chicago, has appointed W. R. Auwarter as sales manager of the corporation's packaging division.

Mr. Anwarter was formerly associated with the sales department of the American Coating Mills Corp., Chicago.



Mr. Auwarter

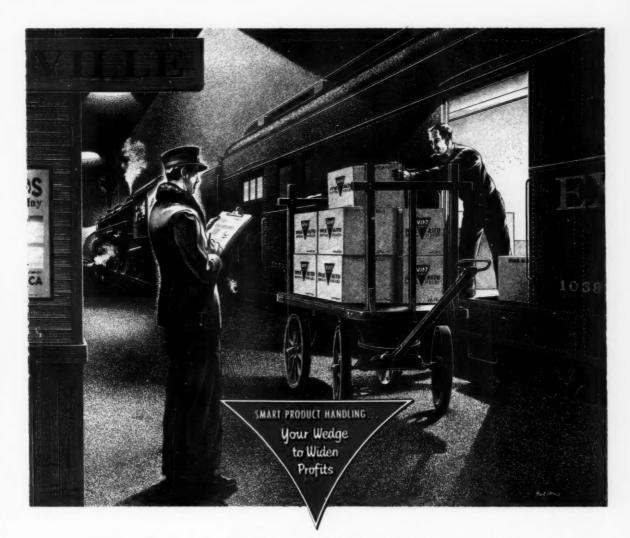
Kupfer Bros. Co., New York, manufacturer of coated, printed and embossed papers, has elected Russell S. Bracewell as vice president in clarge of manufacturing. Mr. Bracewell will headquarter at the company's Northbridge plant.

Milprint, Inc., Milwaukee, Wis., has appointed four new national sales representatives: De Witt Hull, John M. Tarkington, Harold H. Baird and Jerry Rose. Mr. Tarkington will be assigned to a midwestern office. Mr. Rose and Mr. Hull will work from the Chicago office and Mr. Baird will be located in the South.

Minnesota Mining & Mfg. Co., St. Paul, Minn., has appointed Alvin W. Boese as technical director of its ribbon laboratories.

National Gypsum Co., Buffalo, N. Y., has appointed F. Robert Campbell as packaging manager.

National Container Corp., New York, has acquired the physical assets of Allied Paper Bag Corp., Kansas City, Mo. Allied's modern plant for manufacturing multiwall bags gives National Container



The Damage Prevented By Gaylord Boxes Is Clear Profit For You

When you comb your operations for places to cut costs, take a long look at damage claims. The actual claim is only the beginning—it sets off a chain reaction of confusion that cuts into what should have been your profit.

Many manufacturers are discovering the profit advantages of reducing damage claims through the extra protection of Gaylord boxes.

The Gaylord quality that assures you this added protection comes from new developments in tougher fibre board, stronger designs and precision accuracy in manufacture...all built into every Gaylord box to protect your profit, as well as your product.

For information and cooperation, phone your nearby Gaylord office.

GAYLORD CONTAINER CORPORATION

SALES OFFICES



General Offices SAINT LOUIS, MO.

COAST-TO-COAST

CORRUGATED AND SOLID FIBRE BOXES . FOLDING CARTONS . KRAFT BAGS AND SACKS . KRAFT PAPER AND SPECIALTIES



Transparent or opaque in uniform, seamless, tubular shapes!

Available in most any length . . . from an inch on up. In flat widths from 1' to 9\frac{9}{4}". In thickness from .001 to .005 inches or from 100 to 500 gauge! Displays excellent tensile and bursting strengths!

Non-permeable to bacteria . . . permeable to steam for sterilization after ckaging!

Flexible, elastic, and readily pliable! 6 Can be used wet or dry . . . exhibits

Can be dyed with regular or food

8 Prints beautifully with any type nting process

Can be easily sealed with adhesives or end tied!



Ideal for packaging and displaying foods, pharmaceuticals, etc.; for protective packaging to prevent contamination, retard rust and corresion, for sterilization after packaging.

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Name	Title
Company	
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City	ZoneState
Anticipated U	lse
Flat Size	Thickness

Plants and people

a strategically located plant to serve Southwest markets. Ernest E. Brown has been appointed general manager of National Container's multiwall and specialty bag plants.

Paterson Pacific Parchment Co., San Francisco, Calif., has appointed William G. Batson as sales manager.

Arnold B. Huyssoon has been named senior vice president and general manager of the paperboard division of the Continental Paper Co., Ridgefield Park, N. J. This combines the company's paperboard sales and manufacturing under a single executive officer. Mr. Huyssoon has been



Huyssoon

with the Continental Paper Co. for 33

Eagle Chemical Co., Chicago, manufacturer of silica gel and clay desiccants, has established new West Coast warehouse facilities in Beverly Hills, Calif. The Noland Paper Co. of Beverly Hills, under the management of M. W. Noland, has been made representative in the area.

Fibreboard Products, Inc., San Francisco, has installed a new five-color rotary Miehle press at its Stockton, Calif., plant, to increase the company's output of food packages and cartons. Precision Electrotype Co. of San Francisco, a subsidiary of Fibreboard Products, will install modern equipment for casting plates especially for the rotary-type presses used at the Stockton plant.

The Traver Corp., Chicago, makers of transparent packaging, have appointed I. Robert Levy as executive assistant in charge of sales. Mr. Levy was formerly with Milprint, Inc., and is a specialist in the development of transparent packaging for retail products.

American Tag Co., Chicago, has elected A. H. Swett chairman of the board. Other officers include: Donald M. Swett, president; William O. Swett and Robert W. Swett, vice presidents; Walter Peterson, vice president and general sales manager; Charles Corbett, vice president in charge of production at the company's Belleville, N. J. plant; and Allan McArthur, sec-

Harry Carlson and E. H. Gross have been appointed to the Market Development Dept. of Bakelite Co., a Division of Union Carbide & Carbon Corp., New

Continental Can Co., Inc., New York, has named Noel A. Pease manager of manufacturing for the plants in the Fibre Drum Div. Mr. Pease will headquarter in Van Wert, Ohio.

The Continental Filling Corp., Danville, Ill., has appointed W. D. Duensing as office manager in Danville. William Dietzen has been named assistant to the vice president in charge of operations and John K. Shea has been made a sales department correspondent.

Dewey & Almy Chemical Co., Cambridge, Mass., has announced the election of Arthur D. Angell as vice president, Western Div. Mr. Angell joined the company in 1927 and has, since 1945, been manager of all Dewey & Almy West Coast operations.



Elmer L. Carlson has been named treasurer and financial adviser of the Green Bay Paper & Pulp Co., and the Green Bay Box Co., both of Green Bay, Wis.

The I. D. Co., New York, has been presented with a gold medal award for its display, at the recent Philadelphia Candy Show, of fancy re-use decorated and embossed metal containers imported from England.

Kidder Press Co., Dover, N. H., has appointed Philip L. Wallace to the New York sales office. Long identified with flexographic printing equipment as designer, operator and sales engineer, Mr. Wallace will provide a flexographic consulting service.



Leo J. Meyer has been promoted to supervisor of material standards in the technical department of Gardner Board & Carton Co., Middletown, Ohio. William A. Long has been appointed a salesman for the board sales department.

The name of the A. S. Kratz Co., Inc., has been changed to Virginia Folding Box Co., and will be operated as a proprietorship firm. The business will continue under the same management.

Lamson Corp. of Delaware has acquired the fork-lift-truck business of Mobilift Corp., Portland, Ore. By adding a series of fork-lift trucks, Lamson, which manufactures conveyors, pallet loaders, pneumatic tubes, blowers and related types of



FILLING and LABELING MACHINES are Simple in Design

- reduces maintenance to a minimum
- · high speed, accurate production in the least possible space

All-Purpose Straightline Vacuum and Gravity Filler

> 8 to 12 Spouts Production capacity up to 80 containers per minute

Fills thin to viscous liquids (shampoos, syrup, mustard, etc.). Fully adjustable to handle containers ranging from fractional ounce to one gallon-all shapes and mouth diameters (glass, tin or plastic), including sprinkler tops, open top cans and jars.

Write Dept. MP-1 for literature on MRM Fillers and Labelers

mrm company, inc. 191 BERRY STREET, BROOKLYN 11, N. Y. Manufacturers of a complete line of fully automatic and semiautomatic filling equipment and fully automatic labeling machines.

Aerosol Users!
Are you posted on

Pres - 6

the valve that is preferred by the leaders?

Pres-O's advantages, not duplicated in any other valve, mean continuing satisfaction to your customers and manufacturing economies you won't want to miss.

COMPLETE SERVICE - including the new Pres-O Filling Equipment Accurate, compact, light, portable - and now available to our customers

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in FULL ROLLS - Slit to Size at CELANESE LIST PRICES

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National Distributors of PLEXIGLAS, LUCITE, ACETATE POLYSTRYRENE, VINYLITE, NYLON, TEFLON, FORMICA

CAPPERS

A MODEL FOR EVERY PURPOSE ...

A SPEED FOR EVERY NEED!





RESINA

Standard, single head, automatic screw capper.





RESINA

High speed, straight line screw capper. Rated for speeds up to 300 per minute depending on size of container.





RESINA

Automatic innerseal machine for selecting and applying standard innerseals to various types and sizes of tin cans as commonly used in the oil industry.

Agents in principal cities throughout the United States and Canada

RESINA AUTOMATIC MACHINERY CO., INC.

BROOKLYN 31, N. Y.

Plants and people

materials-handling equipment, has taken a step toward becoming a manufacturer of a completely integrated line of materials-handling equipment and engineering services.

Robert G. Neubauer, Inc., package designers, have opened a new studio building at 234 Greenfield St., Fairfield, Conn., 56 miles from New York City, just off the Black Rock Turnpike exit of the Merritt Parkway. The new building, completely



modern in functional layout, provides more than 2,000 sq. ft. of working space. North light for the entire working area is provided by a 78-ft. picture window facing out toward rural Connecticut.

Von der Lancken, Lundquist & Sorensen, industrial designers, New York, have appointed Seymour D. Wassyng as an account executive in the package and product-design department.

Dr. Berton S. Clark, scientific director of the research and technical department of American Can Co., New York, has retired after 38 years with the company. Dr. Clark is credited with many contributions to the advancement of canning and container manufacturing. He is president of the Institute of Food Technologists and has been a consultant to the Quartermaster General on foods and packaging and to the Dept. of Agriculture on the utilization of surplus farm products.

Atlas Plywood Corp., Boston, has appointed Donald R. Wall as advertising manager and director of publicity. Mr. Wall was formerly with Bostitch, Inc.

F. Ware Newbury has been named vice president in charge of sales of Alan Berni & Associates, Inc., New York package and industrial design firm. Mr. Newbury will be in charge of the firm's new branch office at 79 Milk St., Boston.

Quaker State Oil Refining Corp., Oil City, Pa., has begun construction of a modern oil-packaging plant at Portland, Ore. The new structure, scheduled for completion in April, will have a daily output of 25,-000 gal. of motor oil in quart cans, with



At its selling best...wrapped in olin cellophane

How attractively the color and texture of a Cannon towel are revealed in a sparkling wrap of Olin Cellophane! And you know it is immaculate, under that dust-proof protection.

Your product, too, can catch the buyer's eye faster-keep fresher in stockin an Olin Cellophane or Polyethylene package. Let the Olin Merchandising Service show you how to use these versatile films for more sales, better protection—possibly at lower cost.

Today ask Olin Cellophane, 655 Madison Ave., New York, to have a packaging consultant call upon you without obligation.



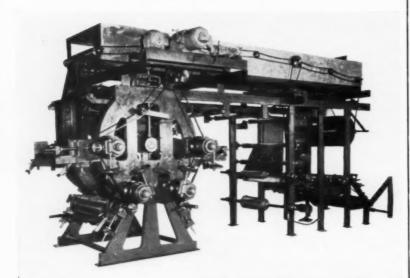
A great advancement for printing films

NEW flexographic LEMBO

4 color supported-web press

The most perplexing problems of high-speed in-register printing of polyethylene and other plastic films are solved by this ingenious Lembo press. The web is carried through the printing rollers on a continuous blanket, assuring perfect printing at speeds from 0 to 500 feet per minute. Compact construction. Widths from 24" to 60".

- Choice of 360° planetary gear register control or electronic register control
- Impression cylinders taken out of contact with printing rollers by electric motors
- Optional unit dries ink between impressions for outstanding speed.
- Can be equipped for gravure printing, and with rewinds for cellophane or paper



Ask about
Lembo surface
printing machines
up to twelve
colors.

Full details and quotations on request

LEMBO machine works, inc. 248 East 17th St. Paterson 4, N. J.

Manufacturers of Printing Presses and Cylinders

Plants and people

facilities also for packaging oil in 5-qt., 5-gal., 14-gal., 30-gal. and 55-gal. units. Clifford L. Cook will be plant superintendent and the sales force will be supervised by A. J. Shidemantle.

Alan H. Redpath has been appointed general manager of the newly created ribbon division of Minnesota Mining & Mfg. Co., St. Paul, Minn.

Peter D. Bowley, head of Peter D. Bowley & Associates, San Francisco, widely known in the packaging and canning machinery fields on the West Coast, died on Dec. 8. A machinery manufacturers' representative covering some 14 states, Mr. Bowley acted as sales agent for such companies as J. L. Ferguson Co., U. S. Bottlers Machinery, Elgin Mfg. Co., Brown Bag Filling Machine Co., Chisholm-Ryder and Machinery Service of Louisville. Mr. Bowley was a vice president of the J. L. Ferguson Co., having been a sales manager for them for many years prior to his moving to California in the late '30s.

True M. Avery, former vice president of Union Bag & Paper Corp., died in Glens Falls, N. Y., on Nov. 16 after a long illness. Mr. Avery joined Union Bag in 1907. In 1936 he was appointed a vice president of the company and manager of its machinery-design department. He continued in this capacity until his retirement in 1941. Mr. Avery is known for the many individual patents relating to inventions and improvements in paper-converting machinery granted to him.

Armstrong Cork Co., Lancaster, Pa., has announced the death of Howard E. Wright, former district manager of the Glass & Closure Div.'s New York office. Mr. Wright died at his home in Caldwell, N. J., on Nov. 7 at the age of 80.

Harold H. Murphy, former sales manager of the Chicago Carton Co., Chicago, died on Oct. 28, after a long illness, at the age of 54.

The death of Foreman M. Lebold, president of the Morris Paper Mills, Chicago, has been announced.

Harry D. Oppenheimer died on Oct. 31 at the age of 75. Mr. Oppenheimer was chairman of the board of the Oppenheimer Casing Co., which he started in 1914, the Transparent Package Co., Rival Packing Co. and J. S. Hoffman Co.

UTILITY and STYLE

Specialization and experience combine the advantages of metal ends, the economy of paperboard and label in a single package—rugged and versatile in use, handsome to look at.

SEFTON FIBRE CAN CO.

St. Louis; New Orleans; Portland, Ore.; Piqua, Ohio

For your information

The annual meeting of the Canning Machinery & Supplies Assn., to be held in Convention Hall, Atlantic City, at 11 a.m. on Sunday, Jan. 24, coincides with the joint National Canners Assn. Convention-C. M. & S. A. Exhibit. Exhibit hours for the C. M. & S. A. 47th Annual Exhibit are: 10 a.m. to 5:30 p.m. on Saturday, Jan. 23, and on Monday and Tuesday, Jan. 25 and 26; on Sunday, Jan. 24, the hours are from 1 to 5:30 p.m.; on Wednesday, Jan. 27, from 10 a.m. to 3:30 p.m. The association's past presidents will hold their annual dinner on Friday, Jan. 22, at 7:30 p.m., in the West Room of the Hotel Claridge.

The convention of the National Assn. of Frozen Food Packers, to be held at the Hotel Commodore, New York, Jan. 31 to Feb. 3, will be an unprecedented fourday session at which every group concerned with the marketing of frozen foods-brokers, distributors, supermarket and chain-store operators, executives of cooperative and voluntary buying groups, independent retailers, as well as the packers-will jointly discuss mutual problems. There will be separate sessions to consider such problems as size and weight of packages, handling and marking of goods at retail, market research, methods of display, trends in distribution, design of packages. For registration cards and hotel reservations write to National Assn. of Frozen Food Packers, 1415 K St., NW, Washington 5, D. C.

The National Flexible Packaging Assn., at its annual meeting in New York last month elected Robert S. Jones of the Dobeckmun Co. as president for the new year, succeeding Fred S. Hinkle of the Shellmar-Betner Div., Continental Can Co., and re-elected John M. Cowan secretary and managing director. The following members were elected to the board of directors: Theodore Isen, Karl R. Hines, Jr., T. J. Heffernan, J. F. Zorn, M. E. Pavitt, Stuart Moore, Jr., R. W. Bertram, W. M. Membrino, H. N. Brush, A. D. Hoeppner, T. A. Lancaster and M. P. Williams. Unanimous approval was given to a recommendation by the polyethylene converting group that members identify the gauges of polyethylene film on invoices, finished orders and price lists to protect the purchaser and to maintain the highest standards of industry practice. M. M. Zimmerman, publisher and editor of Super Market Merchandising, urged the group to work toward getting costs down so that they are compatible with the product packaged.

The Fifth Western Packaging & Materials Handling Exposition, to be held Aug. 17-19, in San Francisco's Civic Auditorium, will underscore the advantages of pre-packaging in consumer-size units at the factory and packing level. Interest in the show is evidenced, according to Clapp & Poliak, exposition management, by the fact that more than 70% of total exhibit space has already been contracted.

Continental Can Co.'s new 16-mm., full-color film entitled "The Fourth Man, or Makin" a Buck is No Mystery" tells a 17-min. merchandising story on the handling and promoting of beer in cans. The film is available to beer-can customers on request to Continental Can Co., New York, for use at meetings and conventions. As a more detailed show, the company has also built a 20-min. live presentation around the film, using promotional props and two-man narration. This live portion reviews and develops more fully the story told by the film.

Arthur D. Little, Inc., has issued a new brochure entitled "A Few Case Histories," containing a random sampling of cases in which this industrial research and engineering firm has participated. Copies are available from Arthur D. Little, Inc., 30 Memorial Dr., Cambridge 42, Mass.

The Packaging Institute has announced the 1954 PI Forum will be held Oct. 25-27, Hotel Roosevelt, New York.

At the recent annual meeting of the Grocery Mfrs. of America, Inc., Paul S. Willis was re-elected president. Other officers are: first vice president, Joel S. Mitchell of Standard Brands, Inc.; second vice president, Paul S. Gerot of Pillsbury Mills, Inc.; third vice president, W. H. Vanderploeg of Kellogg Co.; secretary, William A. Dolan of Wilbert Products Co.; treasurer, B. E. Snyder of R. B. Davis Co.

The 4th Annual Lithographic Awards Competition & Exhibit, sponsored by the Lithographers National Assn., for outstanding lithographic and advertising material produced in 1953, will be held in New York late in April. The competition, which will include 40 different classifications, is open to all members of the lithographic industry, buyers, advertising agencies and any person or organization connected with the design and production of lithographic material. Prize-winning entries will be exhibited in New York and at the LNA convention in White Sulphur Springs, W. Va., then will

tour various cities. A "4th Awards Catalog," containing reproductions of the winning material, will be published.

Marathon Corp., Menasha, Wis., has produced a new black-and-white sound film entitled "Inspection, Please!" designed to improve the knowledge of actual pointof-sale conditions and thereby point the way to improvements in packaging standards. The film reveals consumer purchasing habits in self-service bacon buying as studied in six geographical areas: Los Angeles, Houston, Atlanta, St. Louis, Minneapolis and Baltimore. The films were made during the busy Wednesdaythrough-Saturday period of the week, using the hidden-camera technique of recording shopper habits. The film will be shown to the meat-packing industry by Marathon's meat-packaging field representatives and later will be made available to associations and other non-customer groups. A statistical summary of

What's doing

Jan. 11-14-National Retail Dry Goods Assn., 43rd annual convention, Hotel Statler, New York.

Jan. 20-22—National Wooden Box Assn., Drake Hotel, Chicago.

Jan. 23-27—Canning Machinery & Supplies Assn., 47th Annual Exhibit, in conjunction with the National Canners Assn. Convention, Atlantic City.

Jan. 25-28—National Potato Chip Institute, 17th annual conference and exhibition, Netherland Plaza Hotel, Cincinnati, Ohio.

Jan. 25-28—Plant Maintenance & Engineering Conference and Show, International Amphitheatre, Chicago.

Jan. 27-29-American Management Assn., Conference on Marketing, Hotel Roosevelt, New York.

Jan. 31-Feb. 3-National Assn. of Frozen Food Packers, convention, Hotel Commodore, New York

Feb. 1-3—American Pharmaceutical Mfrs. Assn., Hotel Roosevelt, New York.

Feb. 3-5—The Society of the Plastics Industry, Inc., Ninth Annual SPI Reinforced Plastics Div. Conference, Edgewater Beach Hotel, Chicago.

THE Aerosol Valve Ton YOUR PRODUCT by Precision



Complete assembled cup type valve for any one inch opening aerosol container. For all aerosol products. Protective domes offered in various colors.



Offered to those who prefer to use their own button design for aerosols or their own dispensing head for foam products.



For containers that have the valve mounting portion incorporated. Precision will supply the complete valve and stake the valve into the container end.



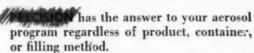


The foam type valve complete with dispensing head having its own locking device. . . . Foam type valve with dispensing head and protective dome. Can be obtained in variety of colors.





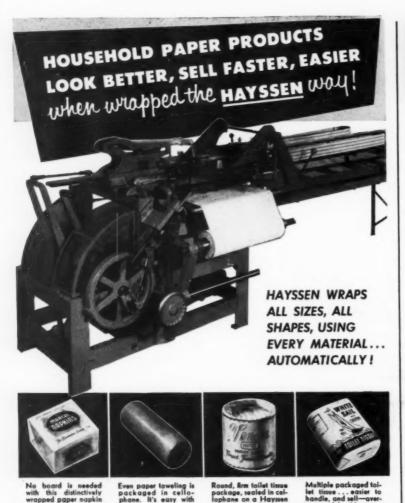
Glass container aerosol valve, complete with button and protective dome.



We invite your inquiry to enable our staff of aerosol valve technicians to work cooperatively in satisfying your valve requirements.



Trecision Valve Corporation



To get shopper-stopper packages that pay off at the cash register, manufacturers of household paper products insist on using Hayssen wrapping machines. In fact, many users report spectacular savings of up to 500% over old-fashioned hand wrapping methods. Every package is automatically wrapped neat and tight in less than 1½ seconds, using any type of material... from heat sealing cellophane to Kraft. What's more, they find that compact, space-saving Hayssen wrapping machines often cost little more than half the price of comparable machines that often require almost twice the floor space.



Since 1910, One of the World's Largest Manufacturers of Wropping Machines
for: PAPER * TEXTILES * BAKED GOODS * VEGETABLES * FROZEN FOODS
CANDY * ICE CREAM * DAIRY * MEATS * IRREGULAR SHAPES

For your information

findings drawn from the film is contained in a booklet also entitled "Inspection, Please!" available from Marathon Corp.

The Vinyl Processors Administration Committee of The Society of the Plastics Industry will promote the new Vinyl Plastic Standard & Seal of Quality through an education program to retailers, fabricators and processors. Responsibility for carrying out the program is in the hands of retailers, vinyl-film processors and vinyl-film fabricators. Since the impetus of this program will not be apparent until next spring, the SPI Fifth Film, Sheeting & Coated Fabrics Div. Conference has been postponed until next March or April.

The Cost Accounting Committee of the National Flexible Packaging Assn. has completed a Cost Manual designed specifically for the conditions encountered by converters of specialty paper, transparent films and foils. It includes all the essential factors in a simplified but practical cost system. Pre-determination of ink costs is explained and a plastic ink-scanning chart is available for accurate measurement of printed areas on a package or on artwork. Manuals priced at \$2 each and ink-scanning charts at 40 cents each may be had from the National Flexible Packaging Assn., 850 Euclid Ave., Cleveland 14, Ohio, attention of John M. Cowan.

The first revision to Department of the Army Technical Manual, TM 38-230 (Department of the Navy Publication, NAVEXOS P-938; Department of the Air Force Manual AFM 71-1) has been announced. Entitled "Change 1 to the Manual on Preservation, Packaging and Packing of Military Supplies and Equipment," it consists of 129 pages which supersede or supplement corresponding pages in the original manual approved for printing in July, 1951. Changes apply to Sections I, II, III, IV, V, VI, VII and VIII. Copies of the complete set of changes, priced at 55 cents, may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Copies of the original manual are available from the same source for \$1.75.

The Plastics Division of Celanese Corp.
of America has announced the availability of two new publications: "Celanese
Acetate Transparent Film Sample Book"
and "Lumarith Acetate Transparent
Film." Both booklets contain descriptions,
illustrations and suggested applications of
the films covered. Copies may be had on
(Continued on page 180)

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View of Medium Double Package Maker in production of CHEEZ-IV containers at Sunshine plant in Long Island City. Pneumatic machines in adjoining line handle two sizes of Hi Ho cracker packages.

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(Continued from page 176) request to Celanese Corp., 180 Madison Ave., New York.

Lippincott & Margulies, Inc., New York design firm, has published a new hard-bound volume entitled "Product Design," the fourth in a series under the general heading of "Inspirations for Management." In addition to case histories of product designs, the book also contains sections on the firm's package designs and point-of-purchase displays.

A third Canadian National Packaging Exposition will be held in 1954. This decision was reached by the Packaging Assn. of Canada, sponsor of the event, because of the outstanding success of the recent 2nd Canadian National Packaging Exposition held in Toronto. Some 15,000 Canadian and foreign business men attended that event, making it one of the largest non-public trade shows ever held in Canada. During the conference, H. S. Romani of Christie, Brown & Co., Ltd., was named president of the PAC. The association feels that the show is now accepted as an integral part of Canada's packaging field and is well established as an annual event.

National Starch Products, Inc., has published a 56-page illustrated booklet entitled "The Story of Starches." This semitechnical booklet presents facts of value to chemists and other technically trained people in a manner that also makes it interesting to non-technical readers. An introductory section explains what starch is and how starches differ from one another. Other sections deal with commercial raw starches, well-known specialty starches, the newer specialty starches, starch derivatives and the handling of starches. Also included is a glossary of technical trade terms. Copies of the booklet may be obtained from National Starch Products, Inc., 270 Madison Ave., New York 16.

The packaging-machinery firm of Agencia Commercial Anahuac, S.A., Av. Madero 6-211-213, Mexico 1, D. F., has recently published a 25th anniversary booklet giving a history of the firm and illustrating and describing the equipment it handles. The brochure contains several full-color illustrations of packages made on machinery distributed by the company.

Information on more than 50 Bakelite and Vinylite plastics and resins, their properties and uses, is presented in a new, revised reference file published by

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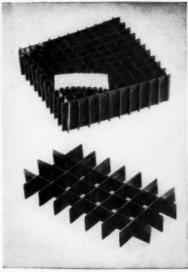
Bakelite Co., a Division of Union Carbide and Carbon Corp. The 12-page "1954 Condensed Reference File of Bakelite and Vinylite Plastics and Resins" contains technical data assembled and simplified for easy use. Copies may be had on request to the Bakelite company, 300 Madison Ave., New York 17.

A convenient source of technical information on The Visking Corp.'s Visqueen film and the polyethylene resin from which it is extruded is a newly published booklet titled "Visqueen Film Technical Data." The booklet is divided into two parts, one dealing with the more general characteristics of Visqueen film and the other giving a summary of the more fundamental properties of polyethylene and a key to technical literature. Copies may be had from The Visking Corp., Preston Div., Terre Haute, Ind.

The Sixth National Plastics Exposition, sponsored by the Society of the Plastics Industry, New York, will be held June 7-10 in the Public Auditorium, Cleveland, Ohio. Space reservations already made—a record number of 128 exhibitors to date—exceed by 20% those made for the last exposition held in 1952. Attendance at the show, which will not be open to the general public, is expected to top 12,000. A technical conference will run concurrently with the show.

The Society of Industrial Packaging & Materials Handling Engineers' ninth annual Industrial Packaging & Materials Handling Exposition and Competition will be held at the Cl.icago Coliseum, Sept. 28-30. The annual Short Course will be conducted concurrently.

Registration is open for a new lecturediscussion course in package design, offered through the Division of General Education of New York University at Washington Square. The course begins Feb. 3 and continues for 14 consecutive evenings from 8:00 to 10:00 p. m. Robert I. Goldberg, New York packaging designer, is course co-ordinator and moderator. Lecturers include: Pearl Hagens, managing editor of MODERN PACKAGING; package designers Frank Gianninoto, Egmont Arens and Jim Nash; Monroe Adamson, Consolidated Lithographing Corp.; J. Whitney King, American Can Co.; Willard F. Deveneau, National Folding Box Co., Inc: M. G. Kaufman, Kaufman-Hoag Co.; Albert Shepard, Institute for Research in Mass Motivations, Inc.; Allyn C. Beardsell and Alfred Hoff-



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man of Container Laboratories, Inc. Topics include the dynamics of color, brand names and trademarks, sales strategy for the point of sale, the testing and evaluation of selling psychology applied to packaging. This last topic will be presented through the cooperation of Dr. Ernest Dichter, who heads a firm of research psychologists concerned with the mass motivating factors instigated by design elements.

Name of the Kraft Products Mfrs. Export Assn. has been changed to Kraft Export Assn. of the United States. Offices remain at 521 Fifth Ave., New York 17.

Three million dollars in products and equipment will be featured at the fifth Plant Maintenance & Engineering Show to be held at the International Amphitheatre, Chicago, Jan. 25-28, according to Clapp & Poliak, Inc., New York, producers of the exposition. The show is among the five largest annual industrial expositions in the country. In conjunction with the show, a three-day conference will be conducted at the Hotel Conrad Hilton with 57 nationally known authorities leading discussions.

Ways in which sales executives plan to meet the marketing problems of 1954 will be reported by representatives of large and small industrial and consumer companies at the Annual Marketing Conference of the American Management Assn., Jan. 27-29, Hotel Roosevelt, New York. On display throughout the two-and-a-half-day conference will be the AMA Marketing Conference Exhibit of company materials illustrating the session tonics.

Dr. T. G. Randolph, an allergies specialist, will discuss the relationship of food allergies to paperboard and paper containers at the Jan. 18 meeting of the Chicago Section of TAPPI at the Chicago Bar Assn. Dr. Randolph was formerly in charge of the Allergy Clinic, University of Michigan, and has co-authored a book on food allergies and written a number of scientific papers on the subject.

The 1954 Western Candy Conference will be held in San Francisco, March 4-5, at the Mark Hopkins Hotel. Latest machinery, equipment and supplies for manufacturing and packaging of candy will be exhibited. All exhibit space has been reported sold and the show is expected to be the largest ever staged in the West for the confectionery industry.



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U.S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U.S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey

Mechanism for Freeing Flaps and Cut-Outs in Carton Blanks, R. W. Anness (to the Gardner Board & Carton Co., Middletown, Ohio. U.S. 2,655,841, Oct. 20. In a device for treating carton blanks, a conveyor for moving carton blanks in timed sequence, a pair of shafts extending transverse to conveyor, one on either side thereof and driven in timed sequence therewith, and an operating element positioned on one of said shafts timed to coincide with a cutout in carton blanks moving along conveyor and perforated to deliver a blast of gas thereto.

Blank-Forming Apparatus, J. R. Baumgartner, Milwaukee, Wis. U.S. 2,655,842, Oct. 20. In a carton-blank-forming apparatus, including a blanking press for cutting blanks of irregular side contour from a web of stock having side waste portions of irregular contour, with part of waste portions and part of blank projecting respectively from opposite ends of the cutout part of the web, the combination of intermittently active means at the entrance end of press engageable with the web, continuously active means at the exit end of the press for feeding the previously cut blank and its waste away from the press, while the web is engaged by intermittently active means to separate the blank and its waste from the web.

Folding-Box Machine, T. R. Baker and F. M. Lefief (to Bemiss-Jason Machine Co., Inc., Redwood, Calif.). U.S. 2,655,843, Oct. 20. A device for setting up folding boxes from flat box blanks, the device comprising a main plunger, a main die having a die aperture through which main plunger is movable, an auxiliary die in advance of main die and a combined auxiliary plunger and feeder.

Box-Blank-Forming Machine, G. S. Sillars (to Hoague-Sprague Corp., Lvnn, Mass.). U.S. 2,655,844, Oct. 20. In a machine for forming box blanks from a web of blank material, means for feeding the web, cooperating punch and die assemblies, one of said assemblies being movable toward and away from the other, assemblies including cooperating punches and dies for simultaneously removing material from opposite sides of the web to form a pair of corner flaps for each of two successive blanks.

Bag of Open-Mesh Material and Paper, C. V. Brady and A. F. Ottinger (to Bemis Bro. Bag Co., St. Louis, Mo.). U.S. 2,655,969, Oct. 20. A bag formed of a generally rectangular top section consisting of open-mesh material extending the full width of the blank but only part of its height, and a separate generally rectangular bottom section of paper extending the full width of the blank and the remainder of its height, section being arranged with the lower widthwise marginal edge portion of the open-mesh section and the upper widthwise marginal edge portion of the paper section overlapping and secured together.

Container-Forming Apparatus, L. B. Eaton (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U.S. 2,655,979, Oct. 20. In a container-forming machine having means for supporting and intermitently advancing a strip of folded bag-forming material one bag section each cycle of operation, the improvement comprising heat-sealing mechanism comprising a pair of cooperating sets of sealing members arranged to heat seal simultaneously two different areas of the strip.

Bonding Machine, A. E. Carlile (to Talon, Inc., a corporation of Pennsylvania). U.S. 2,655,980, Oct. 20. In a machine of this type, a pair of oppositely disposed rotatable rollers, means for delivering and guiding the edges of plies of material into and between said rollers, means for driving rollers, at least a pair of jets for applying a fluid material to the surface of at least one pay of material adjacent the edge thereof, and a plunger arranged within each of said jets for preventing unintentional flow of fluid material therefrom when the driving means is arrested.

Labeling Apparatus, R. S. Kafka (to Midland Equipment Corp., New York, N.Y.). U.S. 2,565,063, Oct. 20. A labeling gun for the application of adhesive tape having a plurality of layers one of which bears pressure-sensitive adhesive and another of which covers the adhesive until use.

Case-Filling Machine, A. C. Davis (to The Davis Caser Co., Baltimore, Md.). U.S. 2,656,081, Oct. 20. In an article-pack-

ing machine for filling a cell case with a charge of articles, a charge-depositing mechanism and means for delivering a charge to said mechanism, said mechanism comprising a carriage movable between charge-receiving and charge-release position.

Jar-Handling Equipment for Capping Machines, A. H. Filander (to Franklin Balmar Corp., Baltimore, Md.). U.S. 2,565,084, Oct. 20. In a capping machine for setting loosely applied caps of screw-type jars: a capping unit; a conveyor for feeding jars to a capping station relative to said capping unit; a carriage on which said capping unit is mounted; a support for mounting and a carriage for up and down reciprocation to bring said capping unit into and out of engagement with a jar cap.

Article-Feeding Mechanism, J. M. Schmied (to White Cap Co., Chicago, Ill.). U.S. 2,656,085, Oct. 20. A mechanism for feeding articles one at a time in a predetermined position from a jumbled supply of the articles, comprising an angularly disposed drum-like container in which a number of the articles are adapted to be placed and a similarly disposed rotatable disk in the bottom of the container against which the articles are adapted to bear.

Method of Inserting Stoppers into Bottles, T. A. Haynes (to The Upjohn Co., Kalamazoo, Mich.). U.S. 2,656,086, Oct. 20. A method of distorting a resilient stopper having a flat top and a hollow cylindrical shank integral therewith for insertion into a bottle neck, the steps comprising creating a partial vacuum in a zone immediately adjacently above and coaxial with the flat top of the stopper.

Master Shipping Container, C. D. Fallert and W. C. George (to Gaylord Container Corp., St. Louis, Mo.). U.S. 2,656,089, Oct. 20. A shipping container comprising a relatively tall upright tubular liner having front, rear and side walls and slip covers telescoping over the upper and lower ends of liner in abutting relation.

Carton Construction, R. C. Ellsworth (to The Ohio Boxboard Co., Rittman, Ohio). U.S. 2,656,092, Oct. 20. A blank for a carton of open-top-tray form for the packaging particularly of products of an inherently oily or greasy nature, especially bakery products, comprising a foldable sheet of paperboard material cut and scored to define a bottom, side and end wall members foldable to erected condition substantially normal to said bottom, and end-wall members being of greater height than side wall members.

Heavy-Duty Fibre Container, S. P. Belsinger (to Belsinger, Inc., Atlanta, Ga.). U.S. Re: 23,729, Oct. 27. A foldable heavy-duty container formed from two substantially rectangular blanks, said blanks being scored and slit so as to provide when assembled for use a container having a double bottom wall, double front and rear side walls, double end walls and a double partition wall integral with the outer members of the rear side walls, said double partition wall extending through a slot in the inner member of the rear side wall and having flaps extending through a slot in inner member of front side wall.

Method of Producing Drawstring Bags, P. B. Hultkrans (to Milprint, Inc., Milwaukee, Wis.). U.S. 2,656,769, Oct. 27. The method of producing bag-like containers from sheets of flexible, heat-sealable materials, which comprises superimposing a pair of the flat sheets and heat sealing all but one edge of superimposed sheets to form a bag open along one end.

Dispensing Pack for Interfolded Sheet Material, C. A. Henderson (to International Cellucotton Products Co., Chicago, Ill.). U.S. 2,656,916, Oct. 27. A dispensing package of sheet material comprising a pack of interfolded sheets doubled on itself about an axis paralleling the planes of the sheets and extending transversely of the fold-formed edges thereof.

Machine for Imprinting and Heat Sealing Labels, R. W. Swett (to American Tag Co., Belleville, N. J.). U.S. 2,656,944, Oct. 27. Machine for selectively imprinting labels and heat sealing same to objects, comprising an adjustable printing mechanism for printing, one at a time, only the end label of a strip of la-





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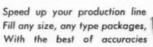








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U.S. patents digest

bels; feeding mechanism for advancing strip of labels one at a time through printing mechanism; a cut-off mechanism adjacent the printing mechanism for severing the imprinted end label from the end of strip of labels, and a heat-sealing mechanism adjacent the cut-off mechanism for heat sealing the severed imprinted label to an object placed adjacent thereto.

Carrier, G. C. Currie (to Dacam Corp., Charlotte, N.C.). U.S. 2,656,959, Oct. 27. A carrier having a bottom panel, a front panel hingedly connected to one edge of the bottom panel, a rear panel hingedly connected to the other edge of the bottom panel and having a handle portion hingedly connected thereto.

Can Carrier, H. A. Carruth (to National Folding Box Co., Inc., New Haven, Conn.). U.S. 2,656,960, Oct. 27. A collapsible carrier of foldable sheet material for a plurality of chime-end cans arranged in two rows, the carrier comprising two bottom panels articulated to each other along a bottom-center hinge line; two wall panels articulated to the bottom panels along bottom-side fold lines; a one-piece top panel articulated to said walls along top-side fold lines and equipped with handle.

Filling Machine, F. W. Krueger (to Food Machinery & Chemical Corp., San Jose, Calif.). U.S. 2,656,963, Oct. 27. In a container-filling machine, means for providing headspace in containers being filled with liquid, comprising a source of vacuum, a source of fluid and a source of filling liquid, a filling valve comprising a container-engaging seal.

Collapsible-Tube Capping Mechanism, H. A. Drew (to Victor Industries Corp., Brooklyn, N. Y.). U.S. 2,656,965, Oct. 27. In a collapsible-tube capping mechanism, a pair of jaws mounted for transverse reciprocation toward and from each other and for movement as a unit longitudinally of the mechanism, having a rack on each jaw and a pair of spaced-apart pinions each meshing with one of said racks.

Can-Filling Machine Having Reciprocating Product-Contacting Plunger and Moisture-Projecting Device Therefor, M. J. McDonough and E. E. Burchett (to American Can Co., New York, N. Y.). U.S. 2,656,966, Oct. 27. In a machine for packing meat or other sticky products into a container, the combination of a table having a flat surface, a conveyor having a flat surface moving over said table surface in sliding contact therewith, a tubular chamber formed in conveyor and open at conveyor surface, a reciprocating product-packing plunger in chamber and a small moisture-projecting orifice in table surface with means for projecting moisture from orifice against the product-contacting face of the plunger.

Roll of Pressure-Sensitive Adhesive Stripping Tape, C. J. Calabrese (to Minnesota Mining & Mfg. Co., St. Paul, Minn.). U.S. 2,657,795. Nov. 3. A roll of normally tacky and pressure-sensitive masking tape consisting of a plural odd number of individual strips of tape in edge-to-edge relationship wound in convolute roll form on a single core, each of said strips being comprised of a non-woven flexible backing coated on the inner face with a layer of rubber-resin-type pressure-sensitive adhesive.

Bottle-Labeling Machine, A. C. Everett (to Pneumatic Scale Corp., Ltd., Ouincy, Mass.). U.S. 2,657,816, Nov. 3. In a labeling machine, in combination, means for supporting and continuously moving successive containers to be labeled, a plurality of continuously moving label-applying mechanisms arranged to apply labels to successive containers as the containers are continuously moved through the machine.

Collapsible-Tube Closure Openable by Pressure of the Contents, L. M. Walch, Los Angeles, Calif. U.S. 2,657,829, Nov. 3. A collapsible tube having an outlet opening through which the contents of the tube may be expelled, spaced-apart opposed flanges on the sides of the opening and on the outer end thereof for slidably confining at least one closure element against the outer end of the opening.

Collapsible Box, H. L. Metzer (to Fort Orange Paper Co., Castle-on-Hudson, N. Y.). U.S. 2,657,851, Nov. 3. In a cut and scored blank of paperboard material adapted to be folded and secured together to provide a collapsible box comprising front, rear and side walls, a bottom hingedly connected to the bottom of said front wall only along a fold line, bottom wall having a cut-out section with a cut edge extending inwardly from one corner of its free end and to a zone which is at least half the distance from free end to fold line and lying in a plane which constitutes a diagonal fold line that bisects the angle of the opposite corner to provide a glue flap.

Box-Setting-up Machine, C. L. Claff and C. A. Moeller (to Norfolk Paper Co., Inc., Randolph, Mass.). U.S. 2,658,433, Nov. 10. In a box-making machine having gluing and folding mechanism for operating on the end formation of a box blank during advance of the blank from right to left by the operator, and pressing mechanism for sealing the box end formation upon presentation of the box to the pressing mechanism in a direction away from the operator and at an angle to the direction of box advance through the gluing and folding mechanism, the pressing mechanism comprising relatively movable pressure members between which the folded and adhesively coated end formation of the box is inserted.

Multiple-Unit Packaging Assembly, J. V. Necas (to P. Lorillard Co., New York, N. Y.). U.S. 2,658,612, Nov. 10. A packaging assembly for a multiplicity of cigarette packs, including in combination a multiplicity of cigarette packs each having large parallel front and back faces, relatively narrow parallel ends and relatively narrow parallel edges, said packs being edgewise abutted to form a flat, narrow column.

Nose- or Eye-Drop Package, L. I. Volckening (to Ivers-Lee Co., Newark, N. J.). U.S. 2,658,613, Nov. 10. In combination an approximately flat first envelope having walls of flexible packaging material and containing liquid such as a nose-drop or eyedrop composition, a second approximately flat, thin envelope having flexible walls separate from said first envelope, a dropper enclosed within said second envelope and comprising a flexible-walled, straight tube having its wall pressed into a seal at one end for dispensing the liquid in the first envelope.

High-Speed Capping Machine, M. N. Schweizer (to Resina Automatic Machinery Co., Inc., Brooklyn, N. Y.). U.S. 2,658,-654, Nov. 10. A capping machine for use in applying caps to uncapped containers, including a conveyor-belt means and a cap-positioning means, said cap-positioning means including a plurality of rotor members engageable with said caps and serving to engage caps upon containers.

Machine for Filling Containers, P. R. Feel:heimer (to The Karl Kiefer Machine Co., Cincinnati, Ohio). U.S. 2,658,657, Nov. 10. In a filling device an elongated filling tube for entering a container, a vacuum tube having sealing means for contacting the top of the container, a source of filling material, a vacuum source and valve means acting alternatively to connect sealing tube to source of filling material.

Bottle Carrier, M. G. Hall (to Empire Box Corp., Garfield, N. J.). U.S. 2,658,659, Nov. 10. A pre-formed collapsible bottle carrier formed from cardboard or like material and comprising, when in its collapsed relation, a pair of similar bottom wall panels joined along a central fold line and folded along said fold line into a closely spaced and generally parallel relation.

Paperboard Box of the Suitcase Type, S. A. Aquino and C. D. Wels'tenback (to The Hinde & Dauch Paper Co., Sandusky, Ohio). U.S. 2,658,661, Nov. 10. A paperboard box having two walls disposed at right angles, one wall having an end flap that has a fold-line hinge connection thereto and that engages with the inner face of the other wall, flap having a slot extending along the fold line and adjacent thereto, and first-mentioned wall having a slot parallel to fold line and spaced therefrom.

Moistureproof Container, N. I. Paulsen (to Reynolds Metals Co., Richmond, Va.). U.S. 2,658,662, Nov. 10. A container which is open at one end, embodying four lateral sides and an end closure consisting of prolongations of each of the sides opposite the open end, comprising a first sheet of material forming the inner surfaces of the container, a second sheet of material forming the outer surfaces of the container, said sheets overlapping on one of the their dimensions to extend about and reinforce two corners of the lateral sides.

Fibre Container, G. W. Reese (to American Can Co., New York, N. Y.). U.S. 2,658,663, Nov. 10. A fully sealed, imperforate, composite container for frozen foods and the like, comprising a tubular fibre body of substantially rectangular cross section having side walls merging into substantially rounded corners, said body also having a removable metallic end closure.

Reclosable Carton, R. J. Hennessey (to Waldorf Paper Products Co., St. Paul, Minn.). U.S. 2,658,664, Nov. 10. A carton including rectangularly arranged side walls; closure flaps secured to the upper ends of said wall panels and folded into superposed relation and adhered together; a weakened line of separation extending entirely about the carton, the weakened line being substantially parallel to and spaced from the upper edges of the side walls, and a weakened line of separation in each of two opposed walls extending upwardly from the first-named weakened line of separation to the line of fold connecting two opposed walls to their respective closure flaps.

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GREENWICH, CONNECTICUT

Guideposts to 1954

(This article continued from page 91) the use of fancy decanters, rather than bottles, for even the lowest-priced whiskies. (December, 1953, p. 100.)

A trend has been reported in the use of glass jars for powdered whole milk solids-with emphasis on protection and convenient reclosure. Specialized glass containers continually meet the challenges of the ever-progressing pharmaceutical and cosmetic fields. With the greater emphasis that can be expected on the merchandising aspects of packaging, it is certain that glass containers offer their share of new opportunities for a wide range of products. As previously noted, glass containers now call for careful consideration in the packaging of some types of aerosol products.

Paperboard containers

This huge field is so broad and has shown so many advances year after year that it is difficult to single out a few of the many developments for any given period. Cartons and set-up boxes can meet just about any package demand and it is their versatility that continues to be news. It has previously been estimated that the U.S. production of boxboard was running at an annual rate last year of more than 6 million tons—a 65% increase over 1943 production. This in itself is a bright reflection on the expansion of paper-package merchandising.

One significant development in the folding-box field has been the rapid rise in recent years of the glueless, lock-tab tray and carton to a position of prominence. These containers, which can be set up economically by machine, have been adopted for a host of products—produce, baked goods, frozen foods, toys, hardware and the like—on a basis of both economy and efficiency.

A new style of pouring spout has been introduced for liquid-tight paper milk containers. The spout pours like a pitcher and is expected to be used on all gable-style paper containers in 1954. (December, 1953, p. 98.)

Shipping containers

Several types of easy-opening tapes for corrugated cartons appeared last year. These provide an important convenience feature for the retailer, because otherwise it takes real effort to open a shipping carton and sometimes the contents are damaged in the process. Tear tapes can also be used to divide the carton into a pallet-like tray so that the merchandise can be easily handled and stacked for display. Price stamping is facilitated and the empty (flapless) sections of the carton make excellent carry-home containers for use at check-out counters. (March, 1953, p. 83.)

Another packager, mindful that shipping cases which help the retailer are an important merchandising plus in today's battle of the brands, has made great progress with a gluedtogether, divisible carton designed to provide retail outlets with smaller (24can) unit cases and at the same time accommodate wholesalers with a more practical 48-can case. (April, 1953, p. 148.) This type of multiple-unit shipper demonstrates a practical approach toward solving the difficult conflicts that arise in meeting the demands of materials handling and those of the distributor.

An important trend to corrugated and solid fibre shipping cases for produce has been noted. (October, 1953, p. 138.) Lower container costs, lighter shipping weights and new mechanical methods of packing and cooling are involved in this movement, which has far-reaching implications for produce packages.

Decoration and printing

If the packager decides—as he surely must—that the merchandising aspects of packaging call for increased emphasis this year, he will find that developments in 1953 opened several new avenues of approach. In addition, numerous notable design successes could be attributed to skillful use of the tried and tested methods.

The Quaker Oats Co. introduced for its cereals cartons letterpress printed in luminescent inks and designed for display under black light. (November, 1953, p. 114.) At least one packager has been experimenting with daylight-fluorescent inks newly developed for letterpress printing. The use of daylight fluorescent colors in packaging did not really get started until 1952. The big success stories in this field are yet to come.

A pronounced trend to fine-screen printing (June, 1953, p. 99) points the way to color realism for those packit will pay you
to package
your spices in
R.C. metal FIBRE CANS

Here are the facts . . .

- SMALLER INVENTORY—R. C. Fibre Cans can be ordered in any quantity—however small. It isn't necessary, because of expensive lithography, to restrict your orders to 25,000 or 100,000 lots. No need to overstock on a slow-moving spice item that will take years to use up.
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- FASTER SERVICE—Quick, dependable delivery keynotes every R. C. order. R. C.'s broad facilities and thorough-going experience in the manufacture of fibre containers is enhanced by freedom from the usual material shortages and cutbacks plus four strategically located plants.
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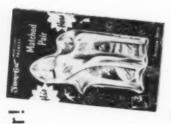
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agers whose cartons must achieve the utmost in beauty or appetite appeal. A similar development said to be slated for the near future is the lamination of full-color, process-printed quality papers to inexpensive boxboard. The Goebel Brewing Co. created quite a stir in its field by emploving rotogravure reproductions of beautiful fish and game pictures on six-can carrier cartons. Increased beer sales, which doubled in a month, were directly attributable to the new design. (November, 1953, p. 100.)

Among the most beautiful packages produced last year were the containers introduced by Dorothy Gray for its Wedgwood line of cosmetics, which involved a new ceramic decorating process on glass simulating the lovely color and texture of Wedgwood blue jasperware. Cartons and boxes employed in this line owe much of their effectiveness to skillful printing and embossing. (June, 1953, p. 106.)

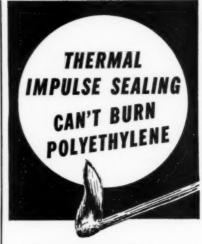
A new method of pictorial printing on corrugated, permitting multicolored tonal gradations, was announced last year. (August, 1953, p. 98.) This individual advance is but one additional bit of evidence of a growing realization that the shipping case can serve an important function as a traveling billboard. It can also in many instances be converted by color printing into an effective point-of-sale display container and thus perform two functions instead of one, to save time and materials.

There was a growing awareness last year that the rack jobber, servicing non-food-item counters in supermarkets, has become an important handler of packaged goods. Supplying the market he represents has become big business and the rise or fall of many a product depends on a knowledge of the rack jobber's needs. His needs, incidentally, coincide with many of the most important considerations that occur in producing any kind of self-selling package. (July, 1953, p. 81.)

New machinery

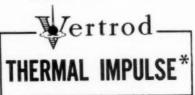
Practically every advance in packaging involves some adaptation, modification or pioneer development in machinery on the part either of suppliers of materials or users. Usually the new package or package effect steals the limelight, but nevertheless the improved machine operation is behind it.

Numerous machine developments



Vertrod's Thermal Impulse **Heat Sealing Machine**

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were outstanding in their own right in 1953. Among these were:

 The first air-control weigher, a net-weight filler for light, dry products such as cereals, that balances its fill-load on a tiny jet of air and operates with extreme accuracy at high speed. (April, 1953, p. 122.)

• A packaging machine that forms a film pouch, fills and seals it, to make this type of package, for the first time in the industry, less costly than the standard carton. (March, 1953, p. 73.) A further development of this machine makes it one of the first in history to handle polyethylene film at high speed—with pre-printing, if desired.

 An in-plant carton former that produces one-piece shipping cartons for pre-packaged tomatoes. (February, 1953, p. 98.)

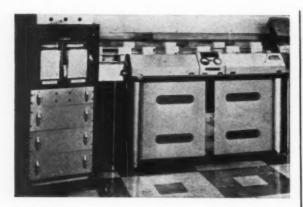
• The first fully developed automatic machines for applying shrink-type cellulose bands—both roll and cut types. (April, 1953, p. 166.) Shrink-on bands, incidentally, have now become important in the food field as well as for beverages. They offer a package-plus for protection and designation of quality. (August, 1953, p. 77.)

• An electronic tablet counter designed for speed and accuracy at up to 2,700 bottles an hour. (*April*, 1953, p. 154.)

• A roll labeling machine adapted for applying thermoplastic labels to pharmaceutical containers. The principle employed is not new, but use of this method has important implications for safety and economy in the labeling of drug products. (March, 1953, p. 107.)

The outlook for new and improved packaging machines is especially good this year. A number of manufacturers are said to have new models under development that will offer higher speeds or change manual operations to automatic. Emphasis in this direction is a logical continuation of a long-term trend, but it takes on added weight when many lines are faced with the necessity of cutting production costs to put more into the package and its promotion. With improved economic conditions in Europe, many interesting foreign machines are now available over here. New machines or models can be expected to compete for acceptance on the premise that they will do the job faster or betterand that, as always, means real progress in packaging.





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Frozen shrimp

(This article continued from page 142) with good flavor; however, there was a slight loss of sweetness at 12 months. Glazed and unglazed shrimp from packages without overwrap were slightly tough, with no off-flavor. The texture change appeared to be the principal adverse factor resulting from loss of moisture.

 Elimination of glazing reduced the defrosting time of a 5-lb. frozen shrimp block approximately 36 to 55% (under cold running water).

5. The shipping weight of a corrugated fibreboard box containing ten 5-lb. packages of frozen shrimp was reduced 15 lbs. (approximately 21%) by elimination of the glazing process.

6. Glazed shrimp, packaged without an overwrap, showed high weight losses, disappearance of ice glaze and desiccation of surface shrimp.

 When tested without overwraps, Marathon shrimp cartons provided considerably more protection for glazed shrimp than the current commercial, stapled cartons.

Summary

Weight losses of 5-lb. packages of glazed and unglazed raw shrimp, packed in waxed cartons, with and without overwraps of cellophane or paper waxed with a resin-fortified wax blend (Tyton paper), were determined at intervals during 12 months' storage at 0 deg. F.

Results indicated that unglazed shrimp, packaged in cartons with an overwrap, showed negligible weight loss and were in excellent condition. Using blindfold taste tests, a special panel was unable to distinguish between glazed and unglazed shrimp packaged in overwrapped cartons. It was concluded that the glazing operation is not necessary if the carton has a satisfactory overwrap.

Elimination of the ice glaze reduced the defrosting time of a 5-lb. block of frozen shrimp approximately 36 to 55% (under cold running water) and reduced the weight of a corrugated fibreboard box, containing ten 5-lb. shrimp packages approximately 21%.

The glazed shrimp packaged in cartons without an overwrap showed high weight loss, evaporation of the ice glaze, bad desiccation of the surface shrimp and slight increase in toughness. These deleterious effects were somewhat reduced through the



Working closely with Underwriters' Laboratories, Inc. and with leading fuse manufacturers, Markem has developed a method which makes possible for the first time the printing of label information directly on cartridge enclosed fuses at production rates. Markem's direct ink imprints cannot "fall off" and are unaffected by moisture or ordinary chemical atmospheres. Paper label inventory and wastage problems are eliminated. Print is larger and color coding and identification are simplified. Fuse manufacturers anticipate better labeling at higher production rates and with lower costs. The Markem Method —Markem Machine, Markem type and ink and the special recording die roll for use when UL Manifest is required—as well as the imprint itself meet with UL approval.

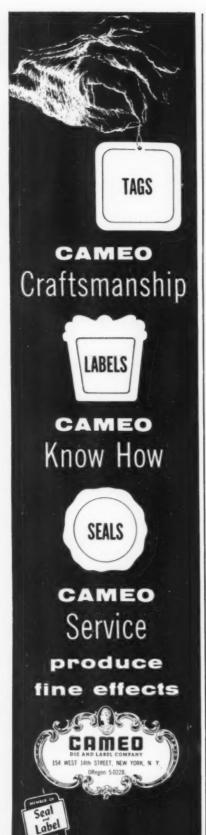


CAN MARKEM Printing labels directly on cartridge enclosed fuses is but an example of how Markem solves industry's marking problems. Markem has been providing industry with production techniques and equipment to identify, decorate or designate its products, parts and packages since 1911. Markem also provides technically trained men who are available in your area to assure continued satisfaction with Markem methods and equipment.

When you have a marking problem, tell us about it and send a sample of the item to be marked. Perhaps a complete Markem method has already been developed to solve your problem. If not, Markem will work out a practical solution.

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use of a more protective high-gloss waxed carton, but the resulting protection was less than that provided by a carton-overwrap combination for unglazed shrimp.

Remarks

The laboratory test results have been confirmed by the experience of a number of shrimp packers, who have completely converted their packaging line to handle unglazed shrimp in a carton-overwrap combination.

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 Fieger, E. A., Green, M., Lewis, H., Holmes, D., and Dubois, C., "Shrimp Handling and Preservation," Refrigerating Engineering 244-247, 286-287 (Mar., 1050)

5. Gulf and Caribbean Fisheries Institute Abstracts Bull. ML 3781, p. 7, 1952, The Marine Laboratory, University of Miami, Coral Gables, Fla.

Beer and beverages

(This article continued from page 106) case unloader are available for full %-and %-depth cases with or without cortons.

One-trip bottles

Some headway for the one-trip bottle in the soft-drink field has been made in the larger 24-oz., 28-oz. and ½-gal. family sizes and in what are known as outside markets, beyond the radius of direct factory deliveries, where the collection of returns is not possible and where consumers will pay the extra to get the beverages of their choice.

The much-discussed future of sugarfree carbonated beverages, which command a premium price, may also have a marked effect on the use of non-returnable bottles in the regular 12- and 16-oz. sizes. About 150 bottlers are now reported to be marketing lowcalorie beverages, under both independent brand names and several nationally known franchised brands. Volume in 1953 was estimated at about 5,000,000 cases—actually only a small fraction of the industry's total production of over a billion cases—but growing every month.

Consensus at the bottlers' convention in November was that these lowcalorie beverages are here to stay, but that they will probably turn out to be a "plus" business rather than cutting to any extent into regular beverages.

Private vs. stock molds

Aside from Coca-Cola, private-mold bottles are becoming less and less a factor in the soft-drink business, as they are in the brewing industry. And the enormous quantities in which Coca-Cola bottles are produced—close to a billion a year—makes that patented design practically a stock container. The effectiveness of ACL (applied ceramic labeling) on stock bottles to provide distinctive appearance and permanence has decreased the need for private molds elsewhere in the soft-drink business. The great majority of brewers package in stock bottles and the success of the one-trip bottles—which are stock molds anyway—has lessened the demand for private molds.

Use of applied color labeling is no great factor in the beer business and in the few places where it is used it is limited to returnable bottles. The additional cost of ACL makes it impractical for one-way bottles, for which paper and paper-backed aluminum foil labels are prevalent.

In the soft-drink field, ACL is used on a high percentage of returnable bottles, particularly in the smaller sizes, because of its permanence and positive identification.

Constant improvement in methods of manufacture is providing users of crown caps with caps of greater uniformity, which permits more accurate machine performance with less friction, fewer hang-ups and less down time. Finest-quality cork is used and special lacquer coatings give greater corrosion protection. Some experiments are being made with polyethylene liners for crowns.

In the final analysis, the most obvious parallel of these two great industries—beer and soft drinks—is the assurance of continued growth by the sheer dynamics of the country's increasing population. How much of the



The eyes have it...

While the eager youngster is quick to swap his nickel for the brightly boxed menagerie crackers, his mother shops more carefully. Both respond to the same stimuli, pick the packages that catch their eye, excite their interest, whet their appetites. And in this age of mass display, a manufacturer can do big business with both by printing his packages and labels in gravure.

Gravure prints persuasion on packages, wrappers and labels. It depicts the product in fullest fidelity, shows colors to their best advantage, adds quality.

Gravure can be used for small runs or unlimited quantities on paper, board, cellophane, vinyl and other packaging materials; and on long runs cuts costs. Merchandisers convert more customers with packages printed in gravure.

Intaglio prepares cylinders and plates for gravure printing...takes your art and copy, makes the color separations and the finished positives, engraves the cylinders and plates, provides color proofs for your approval, and to guide your printer.

Our three strategically located plants have the most modern equipment, much of which we designed ourselves. Our gravure craftsmen are more careful, competent, skillful and experienced; and work in three shifts for faster deliveries.

The quality of our production is evident in any of the 2500 packages and labels processed by us last year. Intaglio Service does more gravure production than any other company.

Our six offices are at your service.

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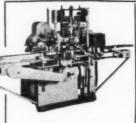
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"FEEDOMATIC **UNSCRAMBLER'**

now with air cleaning! Now positive air cleaning for each container makes the "Feedomatic" better than ever! Operates si-lently, does not mar or scratch the bottles. Changes over in minutes, for any size from an ounce to a gallon . . including rounds, squares, and ovals. Discharges either right or left. Output: 30-150 per minute. Save space with this dual purpose machine.

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consumer dollar will go to their products, however, as pointed out by H. B. Nicholson, president of the Coca-Cola Co., "depends on the kind of selling job we do in the market place."

And how much profit is made will depend to a very large extent on the economics of packaging.

Polyethylene supply

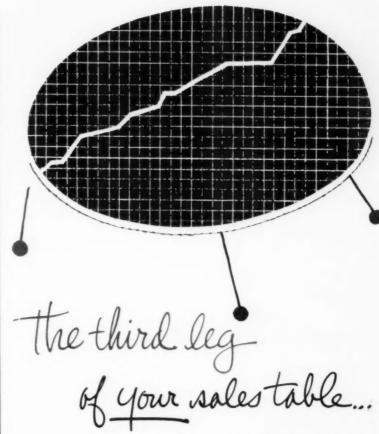
Further easing of the polyethylene shortage is seen by the announcement that full-scale production has been achieved at the new Texas City, Tex., plant of the Bakelite Co. The new plant's production will increase the supply of polyethylene by 45%, according to George C. Miller, president of the company.

"With its production capacity rated at more than 60,000,000 lbs. per year, this new plant is the first to come into production of the three new polyethylene plants announced by Bakelite Co. earlier this year-the largest expansion program in the history of the plastics industry," Mr. Miller said. "The Texas City plant and the two other plants now under way are being built and will be operated by Carbide & Carbon Chemicals Co., another Division of Union Carbide & Carbon Corp.

"By mid-1954, production capacity of Bakelite polyethylene will again be increased as the second plant, rated in excess of 60,000,000 lbs. annually, begins operation at Seadrift, Tex. These two new plants together will be producing at a rate in excess of 120,-000,000 lbs. per year. This increased production of Bakelite polyethylene is approximately equal to the entire industry's polyethylene production just one year ago. The third plant at Torrance, Calif., will have a similar capacity and is expected to be in production in 1955.

"In line with Bakelite Co.'s longestablished policy of lowering prices, as justified by improved efficiency and increased production, the price of Bakelite polyethylene was recently reduced to 41 cents per pound. A series of three price decreases in less than 15 months reduced the price of Bakelite polyethylene from 49 cents to 41 cents per pound."

He said that new uses are being found for the product daily and others, retarded by lack of supply, are expected to follow.



The sales success of your product rests on a sort of three-legged table: 1. A good, saleable product.

- 2. Good distribution and advertising support.
- 3. A good shelf package, with BUY-APPEAL.

You're taking care of the first two points. But the third leg ...

Your product needs the BUY-APPEAL it gets from Bemis Consumer-size Paper Bags, with the brightest, crispest printing your brand ever had.

With increasing self-service, the value of Bemis Packaging has multiplied. Ask your Bemis Man for the complete story.

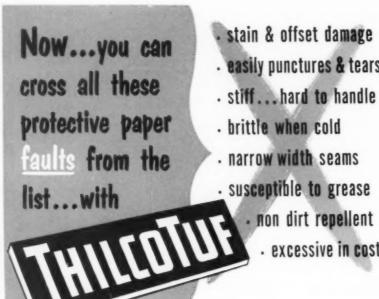


Sales Offices in Principal Cities









- stain & offset damage
- · easily punctures & tears
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- brittle when cold
- · narrow width seams
- · susceptible to grease
 - - · excessive in cost

THE NEW NON-STAINING REIN PROTECTIVE WRAP

101 DIVERSIFIED Uphalstered furniture Textiles Cordage & Twine Carpeting Pre-fab Polished Metals Marble and other products susceptible to stain damage

Safer, better product protection, fewer shipping damage claims and increased customer good-will are some of the extra benefits you get with THILCO-TUF. Born of Thilco ingenuity, this amazing duplex wrapper features an exclusive Bond Elastic Laminant that eliminates entirely the danger of stain or offset due to "bleeding" and does away with most of the common faults found in asphalt grade papers. It is also highly resistant to oil and grease. With THILCO-TUF the combined elastic laminant and creped kraft outer plies remains flexible at extremely low temperatures which prevents cracking and puncture and permits easy handling. In fact, THILCO-TUF is unusually strong and rugged - having nearly three times the puncture resistance of comparable grades. Available in four standard grades with fibre reinforcing and tear-proof edges. It can be further enhanced by polyethylene coating or print decorated for product identification.

120" widths without Seam!

Functional Papers FOR PROTECTION THAT COUNTS!

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Areosol winners

Grand award in the 1953 national aerosol packaging contest sponsored last month in Washington, D.C., by the Chemical Specialties Mfrs. Assn. was "Can Spray," a garbage-can deodorant marketed by Henderize, Inc., Sacramento, Calif. The winning package, which also won top place in the miscellaneous household products group, competed against more than 180 other pressure-packed products entered in the competition.

Judges based their decisions on eye appeal of the containers, simplicity and clarity of instructions for use, and effectiveness of package design in quickly describing the product and creating impulse sales. Other class winners were:

Insecticides-"Bug Bomb," Bridgeport Brass Co., Bridgeport, Conn.1 Honorable mention: "Bug Fix" Insecticide, Thompson Chemicals Corp., Los Angeles.

Moth Products-"Larvex" Moth Proofer, "Larvex" Div., Zonite Products Corp., New Brunswick, N.J.2 Honorable mention: "Fuller" Moth Proofer, The Fuller Brush Co., Hartford, Conn.

Room Deodorants-"Tropic Air" Room Deodorizer, Windsor Chemical Laboratories, Philadelphia, Honorable mention: "Rex" Pine Deodorizer. Rex Research Corp., Toledo.

Lacquers, Paints and Enamels-"Spray-O-Namel" Enamel, Illinois Bronze Powder Co., Chicago.3 Honorable mention: "Brasco" Spray, Bridgeport Brass Co., Bridgeport, Conn.

Miscellaneous Household Products -"Can Spray" Garbage Can Spray, Henderize, Inc., Sacramento. Honorable mention: "Sprayway" Glass Cleaner, Tru-Pine Co., Chicago.

Personal Products-"Molle" Brushless Lather, Centaur-Caldwell Div., Sterling Drug, Inc., New York. Honorable mention: "Cologne Foam," Helena Rubinstein, Inc., New York.

Miscellaneous Products - "Snow White" Christmas Snow, Wilco Co., Los Angeles. Honorable mention: "Hero" Fire Extinguisher, Bostwick Laboratories, Bridgeport, Conn.

¹ See "Bug Bomb Aerosol," Packaging's Hall of Fame, Modern Packaging, May, 1953, p. 94. See "The First Glass Aerosol," Modern Packaging, Jan., 1953, p. 90.

See "Pressurized Paint," Modern Packag-ing, Oct., 1949, p. 110.

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HELPFUL LITERATURE

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EQUIPMENT . SUPPLIES SERVICES

JAR COOLER AND PASTEURIZER. Information about a unit specifically designed to pas-teurize, hold and cool products packaged in jars, bottles and cans, which are pro-duced in their final containers. Island Equipment Corporation.

FLOOR AND COUNTER DISPLAYS. Brochure illustrates the metal units many leading manufacturers use to display, dispense, and demonstrate their products in retail outlets. Advertising Metal Display Co.

VACUUM FORMING MACHINE. Data on an automatic machine for vacuum forming sheet plastics into complete packages, package components, displays, and other items. Specifications included. Vacuum Forming Corporation.

CLUTCHES AND BEAKES FOR PACKAGING EQUIPMENT. Information on the use of Warner electric clutches and brakes on packaging machines for smoother and taster starting and stopping, reduction of vibration and maintenance, and improved speed control. Warner Electric Brake and Clutch Co. (A-454)

ELEVATING LABELERS. Brochure covers the advantages of Chisholm-Ryder Series E labelers for round cans, glass jars, fibre containers, and other cylindrical cans or jars. Units are designed with low in-feed and high discharge height. Chisholm-Ryder Co. (A-455)

AUTOMATIC CARTON TAPING MACHINE. Data on an automatic machine which securely seals up to 50 cartons per minute without the use of glue so the cartons may be knocked down for re-use. Wagner

POULTRY BOXES. Data on and illustrations of many special poultry boxes, including those for shipping chicks, for cold stor-age of poultry, and for shipping eggs and dressed poultry. Hinde and Dauche.

ALUMINUM FOIL. Booklet reviews production methods and quality controls em-ployed by this foil manufacturer. Includes suggested applications for foil in the packaging field. Republic Foil and Metal Mills, Inc.

GREASEPROOF WRAPPING. Bulletin on "Induwrap," a Grade A greaseproof barrier that meets the requirements of Amendments 1 and 2 of JAN-B-121. Angier Corp.

PRE-PACKAGING PRODUCE IN POLYETHYLENE BAGS. Booklet explains the importance of ventilation in produce packaging, recommends bag sizes for various fruits and vegetables, and gives procedure to the product of the produ dure for proper refrigeration. Durethene Corp.

CUSHIONING MATERIAL. Booklet tells how shock-resistant, dust-free, moisture-resist-ant "Hairflex" rubberized curled hair can be used to protect mechanical compo-nents and other fragile merchandise from damage. Armour and Co. (A-461)

MEAD COATED PAPERS. Portfolio contains samples of the complete range of Mead coated papers with examples of black and white and four color line and halftone printing on nine different varieties.

Mead Sales Co. (A-462)

CONTINUOUS UNWINDING AND WINDING EQUIPMENT. Bulletin on the operation of the Dilts "Ferrisplice" continuous un-winder, and "Surfastart" continuous winder, and "Surfastart" continuous winder for use with printing presses and bag machines running cellophane, ac-tate and glassine rolls and affording continuous operation through continuous roll changes at full speed. The Black-Clawson Co., Dilts Machine Works Division.

ELECTRIC LABEL DISPENSER. Data sheet with information on the specifications and use of an automatic dispenser to speed hand application of "Kum-Kleen" pressure sensitive labels. Avery Adhesive Label

bouble-creped Kraft Wrapping. Data on the various types of "Cindus," a double-creped Kraft paper available in coated, impregnated, and other varieties for wrapping, embossing, laminating, rein-forcing, and printing. Cincinnati Indus-tries, Inc. (A-465)

DRUM LINERS. Portfolio discusses physical properties and contains miniature samples of "See-Safe" polyethylene circular bottom and flat drum liners for use in a new method of bulk packaging liquid,

semi-liquid, or solid products. Mehl Mfg.

SET-UP BOX EQUIPMENT. Folder on "Stokes-feed" paper box gluing, feeding and wrapping machines which facilitate the finishing of stayed set-up box blanks. Stokes and Smith Co.

ADJUSTABLE CORRUGATED CARTON MA-CHINE. Details about the economies and advantages of the "Rite-Size" box ma-chine for manufacturing a wide range of different size corrugated cartons with minimum set-up time and expense. Colt's Mfg. Co.

ROTOGRAVURE PRESS. Bulletin on the ATF Klingrose HD two roller impression roto-gravure press for high speed printing of wide webs and rough papers for food wraps, label and other large jobs. Ameri-can Type Founders.

DRUM HANDLING EQUIPMENT. Bulletin illustrates a large assortment of drum cradles, trucks, rotators, slings, and fau-cets to facilitate the use and handling of fibre and metal drums of all sizes up to 110 gallons. Morse Manufacturing Co. (A-470)

AEROSOL VALVES. Folder on Risdon's Model JBR valve for aerosol dispensed products. Describes the construction of the valve and tells why it delivers a uni-form fine spray and positive cut-off. The Risdon Mfg. Co.

"ALCOWAX." Description of the chemical and physical properties of "Alcowax," a low-molecular weight material which is resistant to water and chemicals and may be used for coatings for paper and containers. Semet-Solvay, Div. Allied Chemical & Dye Corp. (A-472)

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EQUIPMENT . SUPPLIES . SERVICES

TOWER COATERS. Bulletin illustrates a few of the possible arrangements of tower coaters for one or two side coating of such webs as cellophane, glassine and the like, and for impregnation of more permeable materials. John Waldron Corp. (A-473)

GLUERS AND CEMENTERS. Bulletin explains the operational features and uses of Schaefer machines for applying various types of gums, glues, and cements to paper, leather, cardboard, cloth, and other sheet materials. Schaefer Machine Co.

ELECTRIC EYE-SPOT RUBBER PLATES. Leaflet illustrates and describes the use of Moss-type ready-to-use eye-spot plates to save time and trouble for flexographic printers.

Mosstype Corp. (A-473)

LAMINATING ADHESIVES. Specifications and application information on several solvent-type adhesives for laminating plastic films, paper, foil, cellophane, and fabric. Rubber and Asbestos Corp. (A-476)

REGISTRATION CONTROL. Bulletin tells how the Ripley sensitive electronic registration control insures accurate register in printing, packing, wrapping or cutting. Schematic drawing shows set-up on typical high speed packaging machine. Ripley Co., Inc.

CARTON-STAPLING MACHINES. The complete line of International carton-stapling machines, from hand-operated units to multi-head production models for stapling corrugated or fiber cartons, is described and illustrated in this brochure. Prices included. International Staple and Machine Co.

(A-478)

MATERIALS HANDLING EQUIPMENT. Folder explains a new combination tractor-trailer and tow line order picking system for warehouses, and illustrates different floor trucks, dollies and industrial casters. Nutting Truck and Castor Co. (A-479)

GROSS BAGGER. Information sheet on a semi-automatic, hand-operated bag filling machine for bagging bulk materials in open mouth textile and multi-wall bags. Contains layout, operation and specification data. Richardson Scale Co. (A-480)

ELECTRO-HYDRAULIC SERVO VALVES. Description of Moog Series 500 Electro-Hydraulic Servo Valves which provide exceptionally high speed of response and accuracy for control systems of printing, paper making and automatic packaging machines. Moog Valve Co. (A-481)

ICE CREAM CONTAINERS. Information on half-gallon ice cream containers which feature embossed metal tops and bottoms, and colorful cellophane laminated exteriors that resist frosting. Cellu-Fibre Can Corp. (A-482)

LIQUID FILLING MACHINES. Bulletin explaining the features and operation of Packer straight-line semi-automatic vacuum or gravity filling machines. Includes data on foamless fillers and fillers for polyethylene bottles. Packer Machinery Corp.

(A-483)

MACHINES FOR CARTONING, WRAPPING AND SPECIAL PACKAGING. Brochure contains information on automatic machines for cartoning tubes, jars, and loose products in single and multiple units, for applying paper and film wraps to various packages, and for banding and other special packaging operations. F. B. Redington Co. (A-484)

"FORMVAC." Bulletin explains the operation of the "FormVac" machine for vacuum forming rigid and soft thermoplastic sheet materials into complete packages, trays, displays and other items of interest to packers. Specifications included. Hydro-Chemie, Ltd. (A-485)

"VELVA-GLO" FLUORESCENT IDEA KIT. File folder contains samples, color cards and suggestions connected with the use of fluorescent papers, cardboards, silk screen colors and brushing colors for promotional and packaging applications. Radiant Color Co. (A-486)

FILLERS FOR STILL AND SEMI-LIQUIDS. Data on the Horix fully automatic rotary, semi-automatic and hand operated fillers for still liquids. Information on speeds, containers and products handled, and method of filling—gravity or gravity-vacuum. Horix Mfg. Co.

SHEET COATING AND GLUING. Full line of sheet coating and gluing machines for use with rigid cardboards, woods, fibers, flexible papers, leathers or fabric is described in a bulletin which contains plant layout diagrams and information on high speed coating operations. Potdevin Machine Co. (A-488)

"CEL-O-SEAL" BANDS. Booklet describes colorful tamper-proof cellulose closures for bottles that allow space for quick price marking on top. E. I. du Pont de Nemours & Co., Inc. (A-489)

"PLASTICS PACKAGER." Issue No. 3 of this house organ shows how molded and fabricated plastics are used to package a variety of consumer and industrial products. Monsanto Chemical Co. (A-490)

CANDY WRAPPER. Data sheet on the "Forgrove 22-B" with hopper feed which wraps candy in a tight fantail twist fashion. Adaptable to cellophane, waxed paper, reinforced foil, or plain transparent overwrap. Package Machinery Co.

BAG MAKING MACHINES. Folder illustrates and describes Roto Bag machines for making flat, gusseted, and square singlewall and duplex bags from polyethylene, pliofilm, cellophane, and other sheet or tube materials. Roto Bag Machine Corp.

"NICOLMELT" COATINGS. Leaflet covers the application of "Nicolmelt" hot melts for bread wrappers, folding cartons, labels and other packages. It also describes the economies of "Nicolmelt" and lists their properties. Boler Petroleum Co.

(A-493)

PACKAGING MANUAL FOR SELF SERVICE MEATS. Brochure extensively covers major aspects of prepackaging meats and poultry for self-service selling. Includes step-by-step illustrations for specific cuts, data on labeling, efficient packaging procedure, and department layout. The Goodyear Tire & Rubber Co. (A-494)

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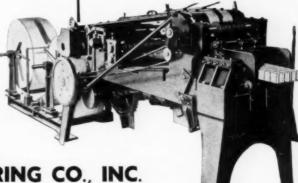
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WICHITA KANSAS PYROXYLIN PRODUCTS, Inc. CHICAGO 32

PAOLI PENNA.

Sharper Lipton

(This article continued from page 127) bers it when she moves up and down the aisle with her shopping cart.

The design approach to the new soup-mix packages was quite different. Here there was no need to adapt. The aim was to create a new, clean, bright, inviting appearance. Color steps up the attention value in the store, but the basic elements come through strong in definite black and white on the TV screen.

The background of the soup carton is white. On this is centered a bull's eye that carries in large letters the name of the particular kind of soup and information on the time it takes to cook. The name Lipton occupies the full width of the package at the top. In the upper right-hand corner in small sans serif type is the notation that the carton contains three packages, with four to six servings each. The same design is repeated on the back of the carton, so that there is no stacking problem for the dealer.

Each kind of soup has its own identifying color scheme to help the shopper make quick and easy selection: tomato vegetable soup—tomato red combined with maroon; celery soup—bright yellow combined with green; chicken noodle soup—bright blue combined with dark blue, etc.

The three laminated aluminum-foil packets in the carton are design duplicates of the carton. The face is white, with the design in the predominating color that identifies each kind of soup. The back of each packet carries recipe suggestions and directions for use.

The onion-soup mix was handled in a slightly different manner. Lipton discovered that consumers prefer to buy the packets one at a time, rather than in three because it was a new variety, not so familiar as the other varieties. Therefore, the onion-soup mix is offered as a "single" but in the same type of laminated aluminumfoil envelope. Counter cartons holding a supply of onion-soup packets display the product and permit the shopper to purchase as many single envelopes as she may wish. The color of the onion-soup package is light blue, dark blue and red on white. The display carton is a warm brown and features an illustration of a whimsical French chef holding a tureen of soup.

Market tests indicate that both dealers and homemakers like the new packages and visual tests show that they have strong recognition and memory value in TV advertising.

CREDITS: Design program, Jim Nash, 405 E. 54 St., New York. Aluminum-foil envelopes, Reynolds Metals Co., Louisville, Ky.

Electronic inspection

(This article continued from page 99) solder joint is in contact with the wires. They also serve to ground the circuit when contacting a can with an incorrect code and thus make more positive the rejection of incorrectly labeled cans.

Two direct-current voltages connected in opposition form the basis for operation of the detector circuit. With no can contacting the wires, the resultant voltage is zero. When a correctly coded can is in position on the wires, the two pre-selected wires connect to reduce one of the voltages to zero, thus leaving a resultant positive voltage. The other five wires are insulated by the inked markings. When an incorrectly coded can is in position on the wires, one of the two selected wires makes no contact with the can, one of the voltages is not reduced and the resultant voltage is zero. For further security, one of the five other wires contacts the can and grounds out any voltage differential remaining across the can.

To prevent operation of the equipment by transient voltages caused by bouncing of the can against the pick-up wires or by poorly lithographed cans, engineers added a circuit that allows only a signal of definite amplitude and duration to operate the equipment.

A grid-controlled rectifier operates a relay from the pick-up wire signal. An adjustable time-delay network has been built into the rectifier circuit so that the relay will be held closed for a period long enough to enable the can to pass through the gate. The grid-controlled rectifier is normally held from firing by a negative voltage. When a positive voltage appears in the grid circuit of the rectifier through the pick-up wires and pulse-length circuit, the tube actuates the relay.

Protection against failure of the equipment is provided by operating the gate for every accepted can. Any failure of equipment causes rejection of all cans going through the unit.

Accepted cans pass to a take-away



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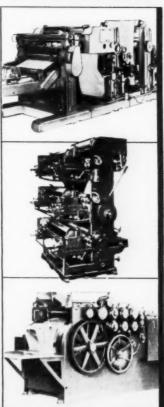
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MACHINE CO.

Mineola, New York







This Model D-6-F Rotary CaPeM increased production to such an extent that Texize Chemicals, Inc., Greenville, S. C. recently ordered a duplicate. This completely automatic line is operated continuously at production rates in excess of 200 bottles per minute.

CaPeM Screw Cappers apply all types of metal and plastic screw caps to jars, bottles, cans and jugs ranging in size from 1 oz. to gallons. Speeds range from 40 to 300 containers per minute. Write for complete infor-

mation.

Robert M. Greer, Supervisor of Bottling. Mr. Greer supports the judgment of other representative companies by selecting this high speed, six-head, rotary CaPeM model D-6-F as a logical answer to the growing demand for Texize products. conveyor, then move into an elevator and into a weight-activated device that places the cans four high for easy insertion into a 24-can shipping case. The packed cases feed through on the conveyor for gluing of tops and bottoms.

The new detection equipment, made in two models, is used on all can-packaging lines in Kodak's powder and solution department. The earlier and simpler model inspects 30 cans a minute. In this installation, the can seamer serves to space or time the cans.

A later model inspects 120 cans a minute. An improved electrical circuit in this equipment operates the gate as the can intercepts a photoelectric beam. The modification of the time-delay circuit was necessary to attain the required speed of operation.

To set up a production line, a foreman inserts the proper selector plug in the control box of the machine and locks the box to be sure that only correctly labeled cans will pass into the case-packing machine. Because of dents, scratches or incorrect labels, approximately 1% of the cans are rejected. These cans are inspected visually and hand packed in cases bearing the inspector's number.

The safeguards provided by the new equipment are considered advantageous by Kodak. True, a mislabeled unit never gets into a production line except by mistake, and this rather infrequently. But the new electronic detection provides further assurance to Kodak customers of the company's high chemical standards. Still further tests of packages are made constantly for weight, durability and tightness of seal.

This company considers a package satisfactory only when it meets these points: (1) provides protection to the product against all likely hazards; (2) identifies the product to suggest the quality and the character of the producer; (3) offers maximum convenience to the consumer in opening, use and storage and (4) lends itself to efficient, economical production.

In this last respect, in particular, automatic machine inspection of approximately 99% of the company's photo-chemical can production represents a major saving and guarantees the customer the utmost in photographic quality under a correct label.

CREDIT: Cans, American Can Co., 100 Park Ave., New York 17.





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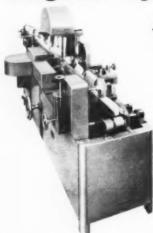
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Guest sampling

(This article continued from page 113) is given away.

Average orders from hotels are for about 1,000 guest boxes. The management does not present them to every guest, but only to those it wishes to favor with special attention or those it believes may have use for them. The businessman forced to stay in town overnight without luggage will obviously be a grateful recipient. TWA is using the Sky Guest Pac for passengers on de luxe sleeper-plane flights. The package is presented by the stewardess shortly after take-off.

For orders upwards of 10,000 it is economical to print individualized, trademarked box coverings, which have added promotional value whenever they are seen. TWA's Sky Guest Pac, for instance, carries the TWA trademark and a background motif of stylized airplanes. The new package for the American Automobile Assn. has box coverings printed with a portion of a road map which can be localized by states if desired.

Gift Pax, which operates some 26 divisional offices for handling its distribution in hospitals and other outlets, has an entirely different theory of packaging the samples. Instead of a box, this firm has found a polyethylene bag to be a more economical and more adaptable type of package. By using two sizes of bags, practically any assortment of package sizes may be accommodated without the necessity of arranging the items with dividers. This method of packaging has, according to Gift Pax, permitted easy filling of the bags at the various destination points to which the samples are shipped directly from the manufacturers, a procedure reported to save substantially on shipping costs.

Gift Pax has applied the same principle to the package for its new Travel Pax, which is a very attractive, specially designed folding carton in the shape of a miniature traveling bag, colorfully printed and equipped with die-cut carrying handles. A tuck-in flap closes the package. The carton opens wide to receive any variety of small sample packages which can be random placed in the container for women or men exclusively, or for both in one pack. Care must be taken, however, that bottled items be supplied properly cartoned to prevent breakage. A special nested corrugated insert has been devised to accommodate certain types of hard-to-handle samples.

Random packaging is particularly well suited to the Gift Pax operation, as this firm makes a strong point of split sampling—that is, spot sampling of certain products in specific geographic locations if desired or in limited frequencies as specified by the manufacturer for test purposes. Any firm with a sample in the packs, however, has the advantage of receiving the names or return postcards.

The impressive growth of these new types of sampling in the last few years indicates exceptional new possibilities in this era of changing merchandising practices. And the number of companies which have continued to renew their contracts during the few years the new programs have been in operation certainly shows that the technique is paying off in winning new customers.

CNEDITS: Guest Pac—Set-up boxes, Manfacturers Box Co., Inc., 305 Railroad Ave., Bridgeport 4, Conn., and Specialty Paper Box Co., 200 Mt. Pleasant Ave., Newark, N. J. Gift Pax—Polyethylene bags, Shore Line Industries, Clinton, Conn. Carrier boxes, A. Fleisig Sons Folding & Setup Paper Box Co., 472 Broadway, New York 13.

Stripcoated cheese

(This article continued from page 97) on standard type of equipment by means of which fine wires are drawn through the block of cheese, dividing it into wedges or blocks of the desired size and weight.

The next step consists of impaling the cheese portions on the metal pallets which support the product while it is lowered into the dipping tanks. First the pallet is placed, prongs upward, on a slotted table, and the portions of cheese are pushed in position, the height of the table regulating the distance the prongs enter the cheese. Each pallet is then placed on a chaintype conveyor having metal crossbars at intervals which are engaged by hooks on the top of the pallet. Through the movement of the conveyor, the pallet descends into the first tank so that the cheese is submerged beneath the heated wax for a period of approximately 2½ sec., then withdrawn vertically. The period of 30 sec. or less which elapses between this dip and the dip into the plastic solution affords an opportunity for the wax to cool and set. Then follows the You can
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topheavy
package
inventories with

Avery Kum-Kleen

labels!



a common problem... General Controls Co. of Glendale, California manufactures automatic controls for widely diversified applications. Warehousing formerly required segregation of more than 100 different boxes. Product changes, from time to time, would make certain preprinted box inventories obsolete.

solved with Kum-Kleen labels... Now box inventories are maintained by size alone—IN HALF THE ORIGINAL SPACE! A self-adhesive Kum-Kleen label identifies the contents of each box as it is used.

SPACE: A self-adhesive Kum-Kleen label identifies the contents of each box as it is used. According to General Controls, "The unique characteristics of Kum-Kleen labels made this new packaging program possible, and they are saving us many thousands of dollars yearly." Their many Avery electric label dispensers "are proving themselves daily to be a most worthwhile investment as a time and labor saver."

how Kum Kleen labels work... They're pressure sensitive—LAID ON fast with a finger-touch—no moistening, no mess! They stay neat and attractive—won't dry out, pop, curl or peel. Patented Avery dispensers—manual or electric—feed die-cut, Kum-Kleen labels off roller tape for quick, clean labeling.

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address



first plastic dip, with the cheese being withdrawn gradually from the solution as the pallet is carried toward the shallowing end of the tank. This stage of the process is rather critical and required extensive experimentation to perfect the technique used.

After the first plastic layer has been deposited, each pallet is passed through a fan-equipped drying chamber where a temperature of approximately 105 to 110 deg. F. is maintained. This quickens the drying of the plastic coating. The temperature used is sufficiently high to remove the volatile solvents present in the solution, but will not soften the coating, which is capable of withstanding temperatures in excess of 200 deg. F. A period of approximately 1½ min. is required for the drying.

The last two coating dips—one of wax and a final plastic dip which forms the exterior of the package—are applied in substantially the same manner, with time and temperature cycles controlled as required. The cheese portions remain on the pallet-type carriers until they have passed through the final drying operation, completing the four-layer coating. Then they are withdrawn from the metal prongs and wax is used to seal the opening left by the metal fingers.

The final stage of the packaging operation consists of labeling and weighing each cheese portion. Thermoplastic labels used are heated face downward on a hotplate and the cheese pressed against them, causing them to adhere tightly to the vinyl outer coating. Packers use a conversion table, based on extensive test runs, in marking the net weight on each label. To set up this table, hundreds of test portions were weighed and marked with vegetable dye prior to application of the coatings, then weighed at the completion of the packaging operation. From these tests, reliable net-weight figures were derived for different types of cheese and portion shapes.

Following application of the labels, the coated cheeses are then packed in shipping cartons.

CREDITS. Cheese wax coating, National Wax Co., 1300 W. Division St., Chicago. Vinyl coating material, Bradley & Vrooman Co., 2629 S. Dearborn, Chicago. Thermoplastic labels, Geis Printing Co., 108 N. Jefferson St., Chicago; Milprint, Inc., 4200 N. Holton St., Milwaukee, Wis., and A. M. Steigerwald Co., 910 W. Van Buren St., Chicago.

Drop cellophane suit

The prolonged cellophane suit in which E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., was charged with creating and maintaining a monopoly of the cellophane business was finally ended last month when a Federal judge dismissed the case, saying that the chemical company should not "be punished for its success."

The Government's civil suit was filed six years ago under the Sherman Anti-Trust Act.

Du Pont pleaded innocent. By the time the trial ended on Jan. 9, 1953, 67 actual days were spent in court.

District Judge Paul Leahy, who dismissed the case in a 381-page opinion, flatly labeled the charges false and pointed to the history of the Du Pont cellophane business as a record of competitive achievement. He said:

"There has been no monopolization or conspiracy or combination or attempt to monopolize shown. The record reflects not the dead hand of monopoly, but rapidly declining prices, expanding production, intense competition, stimulated by creative research, the development of new products and uses and other benefits of a free economy."

Better labeling

A 10-point plan for better product labeling for advertisers was given by Harold Jaeger, vice president and general manager of Gever Advertising, Inc., and director of the marketing bureau of the Can Mfrs. Institute, in addressing the annual convention of the Label Mfrs. National Assn. recently. The plan given was: (1) The label should sell company as well as product. (2) The label should inform and be specific in simple terms. (3) The brand name and product lettering should be simple, clean, colorful and crisp and readable at 10 ft. (4) The color of illustration, lettering and background must fit the product and its market. (5) The label illustration should be appealing, but not involved. (6) The label for fast-turnover goods should be newsy. (7) The label arrangement of elements should be in balance. (8) The label should be changed or revised from time to time. (9) The label should be tested against competition and (10) merchandised to the trade and consumers.





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FOR SALE: 2—Brightwood Box Machines, with collapsers: Sid. Knapp Self-Adjusting Gluer Scaler & Comp. Unit; Pneumatic Scale Packaging Line, late type; Capem SIF Capper; 7—Vacuum & Gravity Fillers, S.S. fitted: Stokes & Colton Auto, Tube Fillers & Closures, Only a partial list. Send us your inquiries. Consolidated Products Co., Inc., 16-20 Park Row, N. Y. 38, BArclay 7-0600.

PONY LABELRITES: Factory rebuilt, one year "new machine" guarantee. New Jersey Machine Corporation. 16th Street & Willow Avenue, Hoboken. New Jersey.

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Union Standard Equipment Company 318-322 Lafayett Street New York 12, N. Y.

FOR SALE: Rotogravure Press. Congested production floor makes it imperative we dispose of 14° 3-color hyroto printing unit. In perfect operating condition. Includes new variable-speed drive, new blower motors, infra-red drying system, over 40 plate cylinders, other extras. Will entertain any reasonable offer for immediate delivery. May be inspected in operation. Packaging Products, Inc., 111 West Fifth Street, Kansas City, Missouri.

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WANTED: Standard 4" top feed, end shedder Brightwood machine, R. R. Maxwell, Brass-Craft Mfg. Co., 2821 Brooklyn, Detroit 1, Mich.

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CARTIESENIATIVES OR MFGRS. AGENTS: To handle volume packaging line consisting of plastic bags, pouches, cases, containers, and specialty items for all types of industry. Samples, sales literature, and leads furnished. Commission basis. May handle non-conflicting allied lines. Send complete resume of experience, other lines carried, and territory covered. Box 680, Modern Packaging. REPRESENTATIVES OR MFGRS. AGENTS: To

CHEMIST—B.S.: Opportunity in packaging di-vision of food company laboratory located N.V.C. One year's experience in packaging desirable. Salary open. State age, experience, education and salary expected. Box 681, Modern Packaging.

OPPORTUNITY: Polyethylene and cellophane bag line. West Coast territories open. Men with non-conflicting lines welcome. If you have a following in the packaging field here is an opportunity to substantially increase your present carnings. Straight commission basis; representing a quality house. This is a real opportunity for aggressive, independent salesmen. Tell us about yourself. Box 682. Modern Packaging.

REPRESENTATIVES WANTED: Mill representa-REPRESENTATIVES WANTED: Mill representa-tive wanted for New England and another for Middle Atlantic States to sell polyethylene coated cellophane, papers, foils, paperboard, etc. This is an exclusive arrangement and will interest those having long range vision. Experience with allied lines to packaging industry, printers, converters and large industrial users essential. Box 699, Modern Packaging.

SUPERVISORY POSITION OPEN: For man with technical background and supervisory experience in coating and laminating operations including operational know-how of the rotograware, squeeze roll, wire rod, and reverse roll methods of applying emulsion, lacquerresin, and wax coatings and adhesives to aluminum foll, films and paper. Extensive knowledge in the converting of aluminum folls is required. Box 685, Modern Packaging.

SALESMAN WANTED: We are seeking a high quality, mature salesman. 28-40 years, to cover New York State and adjacent territory to sell multi-color, top quality folding cartons. We want a self-starter—a man who works to maximum efficiency with a minimum of spervision. Our man must have broad experience in the folding earton business and detailed knowledge of quality packaging and the markets in this area. Our Campany has over 80 years experience in calor lithography. We offer unlimited future opportunity to the man who qualifies. Renumeration on salary basis plus liberal car allowance and all expenses. Complete business and personal resume must accompany business and personal resume must accompany initial application, which will be treated in confidence. H. F. Nunn, Stecher-Traung Litho-graph Corporation, 274 North Goodman Street, Rochester 7, New York.

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Ape 30-40. Must be practical engineer, with
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management essential. Must be capable of
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SALESMEN: Established printer—designer—converter of cellophane, polyethylene and other transparent films. We are expanding our sales force, and have these territories open—Boston, Providence, Pittsburgh, Atlanta, Wisconsin, Omaha, New Orleans, Excellent income possibilities for the right men—some packaging sales experience desirable. Salary to start or commissions. Please give complete background, ability to travel in reply. Our salesmen know of this ad. Box 687, Modern Packaging.

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Leading converter and printer of cellophane, pliofilm, polyethylene, acetate, in rolls and bags.

pliohim, polytenyieter, according to that he is selling as well as a following. Good commission payment plus overwrite on all sales out of branch.
All replies strictly confidential. Our employees know of this ad.
Write full particulars and full experience.
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SALES REPRESENTATION: Well established converter rated AA1 of cellophane and polycthylene is now prepared through expansion of plant to open up new territories for the sale of their products which includes printing up to four colors, rolls, sheets, bags and envelopes heat scaled or glued lip or flush cut. Excellent opportunity for the right men primarily interested in Pennsylvania, Massachusetts and the South. Will consider other territories also. High rate of commission only. Right man may carry other lines that do not conflict. All replies confidential. Roto-Lith Ldd., 30-32 W. 13th St.. New York 11, N. Y., Phone—ORegon 5-6141. SALES REPRESENTATION: Well established

PACKAGING ENGINEER: Position available with leading food Company in the New York City area for man with mechanical experience interested in automatic packaging equipment. Position requires ability to perform and supervise maintenance and repair functions and do some development work for improvements in operation of packaging equipment. Some traveling to Company plants required. All applications will be treated with strict confidence. State full details. Box 694, Modern Packaging.

PACKAGING ENGINEER: Leading Mid-Western Food Manufacturer has a permanent opening for a young experienced Packaging Engineer for assignments in: 1. Design and development of improvements to existing packaging machines.

2. Installation engineering for new plants and additions to existing facilities. 3. Extensive application of purchased packaging machinery to increase production and reduce cost. Natural mechanical aptitude, exceptional interest in Packaging machinery and an engineering degree are helpful qualifications. Unusually good opportunity for right man to assume increasing responsibilities in due time. Will supplement your previous experience with suitable training in our methods. Salary depends upon qualifications and experience. Reply, enclosing full details of background. Box 698, Modern Packaging. PACKAGING ENGINEER: Leading Mid-Western

(Continued on page 214)



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REPRESENTATIVES WANTED: By manufacturers of line of molded novelty plastic boxes state territory covered—lines handled—commission hasis only. Box 693, Modern Packaging.

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SUCCESSFUL INDUSTRIAL SALES MANAGER: in container field seeks fuller utilization of his demonstrated abilities. Unusually versatile man combining imagination, vision, creative flair and mature judgment with the special aptitude-which have made for strong customer relations and resulted in extraordinary sales record. Seasoned Liaison man, executive calibre, M.E., 15 yrs, experience with two AAAA-1 manufacturers. Wide acquaintance in the industry. Familiar with all phases of packaging from design development to marketing. Qualified by experience, both staff and line, to assume complete responsibility for building, directing and energizing a productive sales organization. His place is wherever a suitable challenge exists with a company which values conscientious, principled achievement. Box 693, Modern Packaging.

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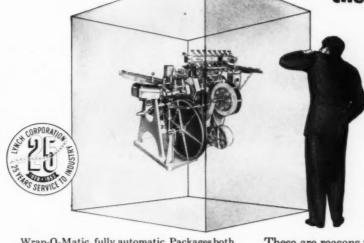
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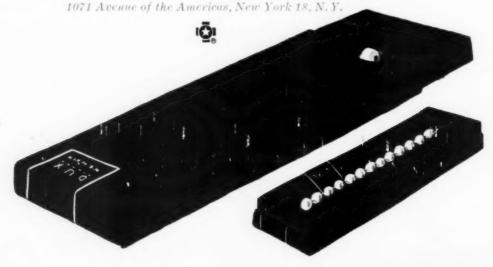


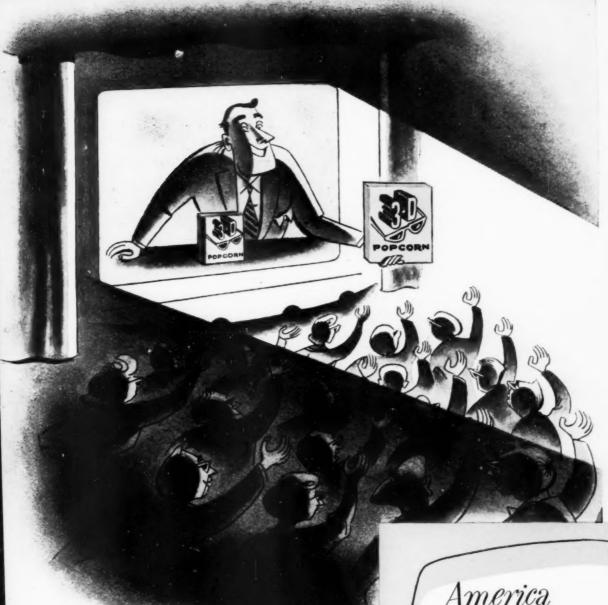


CROMPTON Velvet or Velveteen

Crompton Velvet or Velveteen...for luxurious, durable boxes! Build up the future of your women's jewelry business by latching on to the best salesman of all...your box lined, covered or paneled with Crompton Velvet or Velveteen. For these fabrics really do something for your product... dramatize them, show them off exquisitely... and at the same time, preserve the identity of your brand name. With your trade mark permanently inscribed on its rich magnificent surface, your box covered with these beautiful, glowing fabrics, continues to live on... with re-use value as a miniature carry-all for trinkets or souvenirs. Crompton will be glad to supply you with a list of box manufacturers who will help you design a practical, exciting package for your product. For information write

Crompton- $Richmond\ Co., Inc.\$ The Pioneer of American Corduroy & Velveteen — Est. 1807



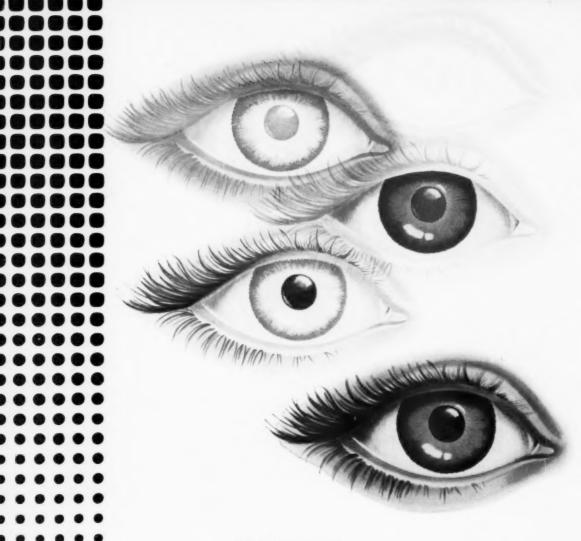


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MICHIGAN CARTON CO.

BATTLE CREEK, MICHIGAN

Package Makers to the Nation



Mastery of

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To match a package color once can be a simple task. To duplicate it millions of times is a rare skill. At Shellmar-Betner, we are proud of our intimate knowledge of gravure inks, of registry, and of the entire printing process. Yet we do not stop here. For our color printing is checked throughout by our special (and exclusive) electronic controls. This extra care works for you—as it works for hundreds of other package buyers—whenever you call on Shellmar-Betner.

